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ORIGINAL ARTICLES.

PROSPECTIVE THERAPEUTICS.

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THE daring feat of Columbus at the close of the fifteenth century did for geography what the discoveries of Dr. Robert Koch have done for medicine. The landing on San Salvador opened up a new world to mankind beyond the Atlantic, and the demonstration of the part played by the bacillus tuberculosis in pulmonary consumption laid bare a totally different world of facts to medical men than that with which they had before been conversant. Before Columbus the air was full of tales of strange lands beyond the Azores, but no one had the hardihood to attempt a demonstration. Before Koch the feats of microbes among the lower animals had been laid bare by Pasteur, and a flood of conjecture concerning the rôle they played with man filled the brains of the thoughtful. Koch first sailed far into these unknown seas making certain what was before vague belief. It was not until Columbus had made a third trip that he set foot on this great continent. It may be that Koch's third trip will enable us to fully conquer that vast continent of diseases due to the bacillus he first discovered. Columbus aroused the world to a full appreciation of the fact that there was more to this planet of ours than the narrow area of territory around the Mediterranean. Inspired by his example, thousands of daring explorers sailed into the far away mysterious West, where they wrested from the domain of the unknown vast regions richer and destined to become greater than the known. Koch has taught us that there is much more to medicine than all that we have hitherto been aware of, and his example has likewise been productive of an enthusiasm that will expand the medical mind as nothing before ever did. Already have the Cabots, Cabrals and Pinzons of the new dispensation gone forth conquering and to conquer. These will be followed soon by the Balboas, Corteses, Pizarros and De Sotos, who will thoroughly explore the new land of therapeutic promise. Already the indications are that our past knowledge in this domain will soon be dwarfed in comparison with the new. It needs no esoteric gift or supernatural power of prevision to become a seer. In the discoveries already made lie the promise and potency of myriads more, and unless indications are exceedingly deceptive, some of them are going to be very marvellous. Everything bids fair before long to supply us with soluble, chemical substances of immense therapeutic power capable of aborting our worst diseases in a brief time, leaving the system in a condition that will enable it to resist subsequent attacks, capable of acting as prophylactics and supplying the same immunity, giving us an almost certain means of differentiating diseases and reaching a correct diagnosis as well as removing barriers to the free action of the specific bacteriacides. This very line of study has already done much for surgery, but it promises to do much more, in the not very distant future, for medicine. Let us briefly scan the future and determine whither we are going.

It has long been known that an attack of a contagious disease gives some degree of immunity from subsequent attacks in spite of exposure. Vaccination has a similar effect in cases of smallpox. Jenner first verified this and popularized the habit, but it was known to many peasants long before his day. Until lately no one hazarded an explanation of these strange experiences, and consequently no one took that personal interest in the subject necessary for its elucidation. Now the theories are many and the experiments innumerable. Out of the struggle of ideas thus set up that one that comports with all the acquired data will finally survive. Pasteur * was the first to question nature upon the subject, and as a result he discovered numerous conditions of microbic growth and a number of diseases of animals that could be controlled by inoculations of attenuated or weakened cultures of those microbes specific to the disease. A localized nidus of the germs was found, after running its course, to leave the animal in a condition that it could resist two or three times as much virus as before, without succumbing to its effects. As careful examinations failed to show that the bacteria themselves migrated from the nidus to infect the body, the conclusion was incontestible that the immunity was due either to something soluble that filtered into the general circulation or that something was taken from the body necessary to their growth. Pasteur, on the strength of some culture experiments, at first accepted our second conclusion as the right one. He therefore held that immunity was due to the fact that the blood had been robbed of some constituent necessary to the life of the bacteria, and that it had

* "Agricultural Report," 1881, 1882, p. 290.

been abstracted during the attack. Chaveau,* however, soon showed that this could not be the true explanation, since immunity is never absolute but always relative. No matter how thoroughly he protected his Angon sheep from Charbon by inoculations, it was invariably found that a large enough quantity of virus being injected could establish the disease. Unprotected sheep would be killed by minute quantities, those protected by a first inoculation would stand twice or thrice as much with impunity but would be killed by four or five times as much. A second inoculation would increase the resisting power over the first, but not to such an extent that a quantity could not be reached that would prove fatal. The same was true for third and fourth inoculations. The quantity required to establish the disease or to kill was always directly as the immunity acquired. Had the non-development of the microbes in their host been due to the absence of proper pabulum in the blood, a first attack would have given absolute protection, and no increase in the quantity of the virus injected could have again re-established the disease. Guided by these facts, Chaveau concluded that a poisonous principle developed in the blood that ever after acted as a germ inhibitor, but with a power that could be overcome with sufficient virus. Salmon† pointed out that such a principle being foreign to the blood would soon be eliminated, especially as it is soluble. This would give an immunity exceedingly ephemeral, while that of many diseases endures a life time. He showed that broth made from the flesh of immune animals made excellent culture fluids for the very microbes to which in life they were quite insusceptible. For reasons since discovered such experiments, however plausible the conclusions may be that are drawn from them, are not well taken. His theory was that animals are normally able to resist all bacteria unless paralysis of their cells occur from the presence of a poisonous substance, such as a ptomaine. When so paralyzed their function ceases, oxygenation is arrested and the gas accumulates sufficiently in the blood to supply the wants of the bacteria. Both cells and microbes require the oxygen, and there is only enough for one or the other. As long as the ptomaine affects the cells they are unable to contend for the supply, and it goes to the microbes. When the cells become used to the ptomaines as they do to tobacco, whiskey or morphine, so that an ordinary amount but slightly affects them, reaction occurs and the invaders are conquered. The disease comes to an end. By retaining this tolerance to the poison, immunity is acquired. Bacteria can gain no foothold where their products can not paralyze the cells. Of course it is evident that this theory clearly accounts for the relativity of contagion and the self-limited character of contagious diseases. Sternberg and Law both contest Salmon's right to priority in advancing this theory. Each believes himself to have been the first in the field with it. Salmon's later experiments aimed at confirming the vital resistance theory, as he has called it. As early as 1881 he had succeeded in giving a considerable degree of immunity, by attenuated virus, to chickens and hogs in chicken and hog cholera, to which they are respectively quite susceptible, normally. Nearly six years later he accomplished the same feat with fully sterilized cultures.* Following him, Pasteur and others gained the same results. Dr. Salmon believed that a ptomaine, produced by the microbes in the culture media, acted upon the cells of the animals into which it was injected, rendering them after successive treatments tolerant, just as they would have become to morphine under like treatment with morphine. This tolerance to the poison he deemed the secret of the immunity because it prohibited the establishment of conditions within the organisms that would allow the microbes to develop. Whatever the value of his explanation may be, the fact remains that he caused the animals to resist a quantity of virus that killed all the control ones while scarcely affecting the protected.

In 1884 Metschnikoff‡ startled the world by the statement that he had found in the blood of animals cells to which he gave the name of phagocytes, that had the power of enveloping, killing and digesting microbes of all kinds. The multiplication of these he held to be the secret of immunity and the animal's power to overcome disease. In 1888 Nuttall‡ attacked this phagocyte theory, showing that bacteria are destroyed by merely placing them in either fresh blood or fresh blood serum. In the absence of all cells there could be none to eat up or kill the microbes, and therefore their destruction must be due to some other cause. Buchner§ confirmed the work of Nuttall, and showed that the bacteria killing power must be traced to the fluid part of the blood. Lubarsch,‖ while admitting the power of serum to kill bacteria, holds that it is but an accidental fact and by no means the essential cause of immunity. In proof of this he points out that whereas rabbits are extremely susceptible to anthrax, the serum of their blood will destroy anthrax bacilli, and though horses are not easily affected by this disease, their serum has no power to destroy the germs thereof. If the serum was the essential bacteriacide, he thinks it ought to show a weak power in rabbits and a strong one in horses, instead of the reverse. He handles Buchner and Nuttall quite severely in his criticisms,

* Ibid, p. 291.
† "U. S. Agricultural Reports," 1881, 1882, pp. 292-295.

* "Transactions Amer. Assoc. Adv. Science," 1888, pp. 275 to 280.
† *Nature*, Nov. 20th, 1890, p. 49.
‡ "Leitschrift für Hygiene," vol. 4, p. 353.
§ "Centralblatt für Bakteriologie, vol. 5, p. 817, and vol. 6, p. 1.
‖ "Annales de l'Institute Pasteur," 1889, p. 229.

and favors with modifications the phagocyte theory of Metschnikoff. In 1889 Gamaleia* showed that to inoculate the aqueous humor of sheep with attenuated anthrax virus gave, for a period of only three months, this same humor the power to kill anthrax bacilli, while the immunity of the sheep themselves that were so inoculated lasted very much longer. The immunity is perceptible three days after the inoculation, and it gradually fades away until at the end of the third month it is entirely gone.

Early in 1890 Fraenkel and Brieger† announced the fact that they had isolated from cultures of various pathogenic microbes toxic substances which they called toxalbumins, and which, when injected into animals, produced all the symptoms of the diseases due to such microbes. Some months later they reported having discovered that the product of the diphtheria bacillus contains two distinct substances, one of which is destroyed at a temperature of 130° F. to 140° F., while the other is but slightly injured by a temperature as high as 210° F. The first seems to be the one that produces the toxic symptoms of the disease, and to the second is credited the power of conferring immunity. The effects on organisms of these substances go to show that they are not ferments or enzymes since the quantity, regardless of time, determines results. Hankin‡ in 1890 published the fact that he had obtained from the spleens and lympathic glands of various animals microbe-destroying proteids. He thinks that immunity is in part at least due to the presence in the blood of small quantities of these substances liberated by the breaking down of the lymphatic cells. As he obtained them from cells that either were or could become phagocytes, he holds the opinion that Metschnikoff's theory is a sound one. In normal blood plasma these substances are either entirely absent or only present in traces. Febrile blood contained so much that he was able to isolate it therefrom in palpable amount. Koch's pupils, Drs. Behring and Kitosato (Japanese), of the Hygienic Institute, Berlin,§ have proven that the fluid part of the blood of rabbits and mice that have acquired immunity against tetanus possesses the power of rendering inocuous the poisons of the tetanus microbes. By transfusing the blood of immune animals into susceptible ones, they rendered the latter equally proof against the disease. Whereas before the transfusion half a cubic centimeter of a virulent tetanus culture would throw a rabbit into spasms and finally kill it, ten cubic centimeters could be injected twenty-four hours after the transfusion and it would remain uninjured. Rabbits and mice, while yet under the throes of the disease, would have it checked as if by magic on the transfusion of blood into their bodies from immune animals. Pure cultures of the tetanus microbe of the greatest virulence would become sterilized and harmless by mixing with them serum from immune animals. That the immunity conferred on the mice and rabbits was of a permanent character they proved by retesting, at periods weeks apart, by injecting quantities of virus that otherwise would have proven fatal. They further proved that the blood of non-immune animals had no such power, that it existed in the cell-free serum, and that it was not due to destructive phagocytes. A number of other investigators at work in similar directions have shown that this bacteria-killing power of immune serum only exists towards the bacteria to which the animal is immune. Behring and Nissen* have proven that the serum of an animal immune to bacillus anthrax will not kill bacillus pyocyaneus but will kill bacillus anthrax, and that that immune to bacillus pyocyaneus, while having no effect on bacillus anthrax, will kill bacillus pyocyaneus.

So much has been lately said and written about Koch's remedy that even laymen have become as well acquainted with its prominent characteristics as medical men. At this late date any description of it or its results would, therefore, seem to be superfluous. This would be entirely the case, but that exaggeration and malinformation have been quite prominent features of many reports. In his first paper Dr. Koch† said: "*I would earnestly warn people against conventional and indiscriminating application of the remedy in all cases of tuberculosis.*" He insisted on our remembering the fact that it *does not kill the bacilli* and only acts by destroying the injured tissue adjacent to them, thus rendering it unfit for their further development. If a proper means of egress is available, it thus separates the diseased from the healthy parts and permits the removal of the latter. In lupus, a disease better known to European physicians than to us, its action can be studied at its best and the field of its future usefulness more easily inferred. The diseased spots soon respond to the remedy by showing signs of intense hyperemia, even when the injection is given at a part of the body remote from them.‡ Then they deepen in shade to a brown, after which they become darker still, dry up and fall off in one or two weeks leaving a perfectly healthy scar behind. The dose of the remedy has been found by Dr. Koch to be very variable according to the condition of the patient. He found that on himself about four grains produced pain in the limbs, tendency to cough, shortness of breath and tiredness within four hours of the time of administration followed in about two hours more with a chill, then fever and nausea with vomiting. Sub-

* "Centralblatt für Bakteriologie, vol. 6, p. 583.
† *Western Druggist*, February, 1891, p. 43. (*Berliner Klinische Wochenschrift.*)
‡ *British Medical Journal*, July 12th, 1890.
§ *Deutsche Medicinische Wochenschrift*, December 4th, 1890.

* "Leitschrift für Hygiene," Vol. VIII., p. 412.
† *Nature*, January 22d, 1891, p. 265.
‡ *Nature*, November 20th, 1890, p. 49.

sidence began in about twelve hours, then the symptoms gradually disappeared.* The minimum adult dose is about one-thirtieth of a grain. When this quantity gives a marked reaction, the conclusion to be drawn is that the patient is tuberculous. The mean dose is from one-sixth to one-fourth of a grain for adults that are not very much emaciated. It is deemed best to begin with the smallest dose and gradually increase as successive doses leave a normal temperature. The duration of the treatment in mild cases of pulmonary tuberculosis is four to six weeks.† When we pause to consider how this remedy acts, and what Dr. Koch has said by way of warning to those who use it, we wonder at the recklessness manifested by some physicians who have secured supplies of it. The worst class of consumptive patients have been placed under treatment, when it would seem as if any child could perceive *a priori* that only death could be the outcome. As an English physician lately said in a letter to the *Lancet*,‡ "to pull down a house infested with rats is only to scatter the vermin to other houses." To destroy the substance that forms the line of demarcation between healthy and diseased lungs is only to let free the infesting microbes to go on missions of depredation in healthy tissue unless some proper means of elimination is available. The warning voice of Virchow,§ fortified by his autopsies, should stay the hands of the too venturesome if they are inclined to ignore Koch's own admonitions. The very men who are rushing to this extreme to-day will be the loudest in their unqualified condemnation of the remedy in a few months hence. Their rule of thumb methods in dosage and the class of cases selected naturally court defeat, thus permitting their ardor to flow out with the tide. Another source of disturbance that is likely to discredit the remedy, is the supply of spurious material that there are indications of having entered the market. More is being used than the output would appear to warrant.

Although Dr. Koch has not as yet given all the particulars as to his method of making his remedy, enough has been learned by bacteriologists to enable them to give what they may deem an identical product. An incubating apparatus, separated by a diaphragm of unglazed porcelain into an upper and a lower half, constitute the necessary arrangement. Pure culture of the tubercle bacilli in gelatinized beef broth occupy the upper half, and a receptacle for the liquified gelatine as it filters through the diaphragm is found below.‖ Of course it is understood that the cause of the liquification is the activity of the microbes. Fifty per cent. of glycerine added to this product maintains its sterility. That the gelatine is prepared from beef broth has not been officially declared, but it is whispered abroad that such is the fact. To be certain of this is important, if we wish to get Koch's remedy, and he has failed to give these particulars. We have no reason for thinking that the ptomaines, enzymes, toxalbumins and other substances that appear where micro-organisms are at work are synthetized directly by them or that they are, in any sense, their excretions. The facts, as far as known, at present seem to indicate that they are combinations of radicals representing the partly broken up molecules upon which the microbes have been feeding. When a browsing animal eats all of a shrub but stump and roots, these will represent what the bacteria leave of a molecule they attack. If this is the correct explanation, then it is evident that the character of these by-products at any time will vary with the composition of the culture medium. This is exactly what experiments have shown. Hoffa* could find no production of ptomaine when anthrax bacilli were grown on broth, but cultivations on meat gave an abundance. Brunton and Macfadyen† showed that different kinds of microbes produce different kinds of enzymes, and that the same kind of microbe varied the character of the enzyme it produced with the kind of food it had to deal with. For foods of the most diverse powers of solubility they always could produce an enzyme capable of dissolving them. Crookshank‡ has succeeded in producing an article that looks, re-acts and apparently produces the same effects as Koch's remedy. He calls it "tuberculine," and it is supposed to have been made in the same way as Koch's "lymph." Both give a copious, white precipitate with phosphotungstic acid, a distinctly orange yellow precipitate on the addition of potassio-bismuthic iodide, a yellowish precipitate with phospho-molybdic acid that turns blue on the addition of ammonia and that disappears on boiling, a deposit of prussian blue when potassic-ferri-cyanide is followed in a few minutes by ferric chloride, and both become distinctly turbid on adding alcohol in excess. Some of these reactions hint strongly of the presence of a base, but so far no one has tried to form or isolate organic salts from them. It thus seems probable that the toxic "tuberculine" of Crookshank and the toxic "lymph" of Koch are identical.

Bacteriologists have now distinctly proven to us that some and probably all zymotic diseases are due, not to microbes direct, but to soluble, chemical products of their fabrication. They have shown us that tolerance of these products is an active factor in giving immunity, but that there is at least one other soluble, chemical product in the blood serum, especially during high fever, that

* *Popular Science Monthly* March, 1891, p. 630.
† *Forum*, January, 1891, pp. 527–536.
‡ *Lancet*, February 7th, 1891, p. 316.
§ *Berliner Klinische Wochenschrift*, January 12th, 1891, p. 49.
‖ *Forum*, January, 1891, p. 527.

* *Nature*, January 22d, 1891, p. 265. † *Ibid.*
‡ *Lancet*, February 7th, 1891, p. 300.

has the power of killing the microbes of the special disease suffered from. They have proven that this substance can impart immunity toward and cure the very disease in which it is found. They have likewise provided us with still another soluble substance having the strange power, in minute quantities, of telling who is infected by the microbe that produces it. This same substance has the remarkable power of destroying the weakened tissue infected by these microbes, and can, in some favorable cases, cure the disease by starving the bacteria. In these facts we seem to have a fulcrum, from which we can pry open the mysterious storehouses of unknown therapeutic knowledge, and at last accomplish feats bordering on the region of miracle. The perfecting of such discoveries, by following the indications of analogy to others like them, and the final completion of the work within this section of this immense field of research, is likely to be accomplished quickly. The production, on a commercial scale, of these specific substances will no doubt soon be entered into, unless imprudence and dishonesty, at the very outset, discredit their importance. Many an article of undoubted therapeutic value has been so discredited. Following this will come an era of chemical activity in seeking means of purifying them and determining their structures, with the final goal in view of their synthetic production in the chemist's laboratory.

PSYCHOLOGICAL MEDICINE.—THE INFLUENCE OF THE MIND IN THE CAUSATION AND CURE OF DISEASE.

By W. Warren Dyson, M. D., Phila., Pa.

WITH the progress of scientific thought in this advanced age, when logical deduction and a rational line of research have brought the theory and practice of medicine into such intimate relationship, it might be well to bestow some thought on the intimate connection of psychology and its influence in the causation and cure of disease.

It is not the import of this discussion to exhibit the fanaticism of no-medicine. faith-cure, or the so-called quackery of Christian science on the one hand, or to depreciate the wonderful reparative powers of nature and the marvelous cures wrought by medicaments on the other, but rather to ascertain in what degree the imaginative influence exerts itself in disordering the economy and what aid we can secure from it in effecting a restoration to health by the influence brought to bear on the mind of the patient.

For the influence the imagination exerts on the vital energes in favoring the production of disease, as well as the power it can wield on diseased states, is no less marvelous in some conditions, more especially where the nervous system is impressionable and thus favors the exhibition of such an agent, than the cures of nature herself when aided by appropriate therapeutic combinations, and its potency for good is of high order.

In remote ages, when superstition was rife and disease was attributed to supernatural origin with the obvious result of the coalescence of the functions of priest and physician in one person who had resort to all kinds of magic, devinations, sacrifices, etc., the Council of Laodicea, as early as A. D. 366, found it necessary to forbid the study and practice of enchantment to priests, but the temptation to persist for the sake of gain was so great the Lateran Council, A. D. 1130, had to forbid all medical attendance by the clergy. That they practiced with a fair share of success is certainly true, and we have it on the authority of Theodore Leger, of the French Academy of Medicine, who was a careful student of their treatment, that it is altogether likely that they used a species of mesmerism in connection with their sacrifices and magic, thus demonstrating, what is more than probable, that their chief reliance was centered in the influence exerted over the patient's mind.

We are convinced that we have not as true a conception of the power of imagination in causing disease as we ought to have, for there are very many states the fancies work in, especially when the subject is weighed down by despondency arising from the cares and perplexities of life, which leaves an impression of a diseased state, and these work upon the mind with such telling effect that they are soon convinced of being a subject of disease.

That the mind can exert a powerful influence on the body might be proved by a thousand instances, even such an insensible tissue as the hair is authentically stated to have turned white from grief or fear. We have seen chorea produced in a child by a fit of jealousy, an attack of spasmodic croup brought on by a lover's quarrel, and cases are numerous where shock or mental impression will cause cessation of the catamenial flow and interrupt for a more or less indefinite length of time after its amount and periodic regularity. Jaundice has been caused by a paroxysm of anger, and we have all suffered from a fit of the blues when "the soul melteth away for very heaviness." It is well known that Sophocles died of joy when his last tragedy was crowned with success. Conversely the body can re-act on the mind, as Voltaire profoundly remarks, that the fate of empires is decided by the intrigues of women and the constipation of kings.

Nowhere is the power of the imagination so wonderfully made manifest as in the pregnant woman where, from some vivid mental impression made by a thrilling scene or accident, its stamp or counterpart is left on the child in utero.

In epidemics of contagious maladies, such as variola, cases are frequently met with where peo-

ple have succumbed from mere fear of the disease, thus demonstrating what grave portent the influence of the mind may have on the body by lessening the vital energies, rendering the system susceptible to its action and less able to withstand the contagion.

It must not be understood, however, that the disease would follow such fear without the patient's having come in contact with the contagious principle, but rather that if a strong mind and energetic will, back the bodily functions, it will often resist the virulence of the morbific element.

This subject becomes of the utmost importance to the profession, for we have only to contemplate the rapid increase of insanity to acknowledge the force of such a statement, and after considerable experience with the insane and a careful analysis of the causes that lead to its production, we are firmly persuaded that its increase is in a measure attributable to a failure in properly estimating the gravity of sympathetic nervous influence in its inception.

There is an art in separating the true conditions from the false in the discovery of disease and in tracing effects accurately to their hidden and distant cause, and in insanity it requires careful analysis in separating the visionary product of the patient's disordered brain from genuine realities.

Thus it is apparent how much we are indebted to the influence of the mind in the causation of disease, and now, on the other hand, it becomes of value as a means of cure.

Naturally it is in those persons of a highly organized nervous system that the most brilliant results are to be expected. In these cases the imagination often acts with the greatest detriment in defeating our measures for relief.

It is not a matter of any wonder in this still superstitious nineteenth century that cures have been said to be effected by the Faith and Christian science doctrine adherents, depending as they do on the stimulation of the mind, and whatever may be said for or against the course they pursue and the doctrines they uphold, there is a germ of merit mixed up with their system which it might be well to consider from an unprejudiced standpoint, and it lies in the influence they exert over the body through the mind, and there is little room to doubt that whatever success they anticipate or have with their patients is centered directly in this influence.

We can influence disease to a surprising degree if we assert an influence over the mind of the patient superior to that which the patient's ailment exerts on his mind.

The invalid often finds relief from his complaints less from the healing virtues of medicine, than because his system of ordinary life undergoes an entire change in his being removed from his business cares, or from whatever else forms the main source of his constant anxiety at home, destroys his appetite, mars the custom of his exercise, deranges his digestive powers and clogs up the springs of life.

There is no disguising the fact that there are very many disorders which would do just as well, and in many cases far better, by letting nature exert her office unattended by medicaments, supplementing in their stead a healthful influence on the mind. The more intelligent medical thought of the day voices this sentiment.

The greater degree of intelligence the patient possesses the more easy it is to guide them by such counsel, but with the more ignorant we can not have recourse to such enlightened modes of practice, for among these our insight to disease and ability would be questioned by the suggestion of such a course, for there are many who believe in physic, and will place no faith in a more royal road to health.

Happily in this latter class the mind is not very often a factor in causing disease, and hence it is not so potent in curing it. Even where grave disease exists the mind may exert a powerful influence for good, and this must be put in action by the hopeful mien and cheerful countenance of the medical attendant, for this will have in many cases a salutary effect on the mind and spirits of the patient, which, re-acting on the body, will pave the way for a more radical cure by medicament and nature's aid. Besides this, the fear of death often acts with such telling force on the imagination of the patient that it is detrimental to our highest skill in effecting a cure. We should not be slow to provoke antagonism to such an impression, and no matter what our misgivings are, we should certainly combat this influence with unshrinking courage. The patient should always be encouraged to hope for the best results, and not be harrassed by the doubts of the physician to whom the empirical nature of treatment is only too obvious. There are some practitioners who acquire over their patients almost a magnetic influence, and their success ably demonstrates the value of psychological aid in the treatment of disease.

It is the influence of the mind on the body and the strength of the constitution that keep many of the sick alive.

Thus it is perceived that through the medium of the sympathetic nervous system we have a powerful agent both in the production and cure of disease. When physicians will intelligently usher this means of cure into more extensive use its utility will be rendered the more manifest, for it will undoubtedly fulfill the indications in those cases of nervous susceptibility to disease where its range of usefulness is greatest with a certainty admitting of no rational dispute.

We can arrive at perfection in the healing art—if that state can ever be attained at all—only by careful thought, a correct weighing of cause and

effect, a long keen and practical study of symptoms, a thorough comprehension of mental phenomena, and by a large instinctive knowledge of human nature.

The popularity of prescribing from mere outward symptoms is a danger near to physicians, and the success of our work would be largely increased by a more thorough observation and careful inquiry into sympathetic nervous influence as a favoring factor both in the causation and cure of disease.

We are too often the dupe of our imagination, especially during our earlier experience, and are apt to place too much confidence in our theoretical knowledge of disease. We should penetrate the character of individual symptoms, and must not jump at conclusions from a mere glance at the visible signs presented for the summing up of our judgment, for if we do we will be a slave to first impressions and too often a victim of error in diagnosis.

The real regard for our work should be rooted in the satisfaction it gives us to conceive the cause of disease and perform a cure, and in our success oftentimes when we have rescued the patient from apparently the very jaws of death, and caused the grim rider of the "white horse," who seemed already to have loomed into view, to return again to the shadowy vale where he so often secretly lurks, we might well be excused if the thought of our achievement brings to mind that poetical Biblical sentence, O! grave, where is thy victory!

AN OPINION AS TO THE COMPARATIVE MERITS OF TRACHEOTOMY AND THE MERCURIAL VAPOR.

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THE consideration of this subject, it seems to me, is one of paramount importance to the practicing physician and surgeon, in that it divides the judgment as to the better selection of the only remaining means of relief offered by medical art to-day for the cure of what is probably the most formidable, and certainly as unpromising to hope, as any of the diseases which we as physicians are called upon to treat. Although time has elapsed that is numbered only by a score of years in the practice of one method, to the other but a very few years has been permitted it to raise for itself all of the praise or condemnation, which by its successes or failures it has proven itself a worthy recipient.

On the side of tracheotomy for the relief of diphtheretic or membraneous croup, statistics, it seems to me, have decided negatively as to its efficacy, although, possibly, appearing in figures more unfavorable than the results would have shown were it an operation performed (as it seldom is) when the patient has sufficient inherent power of reaction remaining to invite the remotest possibility of success. The operation is performed simply to assist in removing the obstructive exudation which has closed the larger and finer bronchia, in the hope of giving to the decarbonated blood some of the oxygen of which it has been deprived, and upon the trust of relieving thereby the progressing cyanosis and impending paralysis to both heart and lungs. But our experience shows that in most cases the patient is deprived of what might have been a very reliable source of relief if early used, but too often is deferred until the whole parenchema of the lungs is invaded with a blood poisoned beyond the hope of ever giving back the life that is rapidly waning to a point of hopelessness—past the power of human aid and recall.

It would, therefore, it seems to me, to be a question of serious import to the physician to ask of himself, how shall I stand? Give up the hope offered to us in the provings of our drugs, or early put them aside for what might seem an equal, if not a better, method of procedure, although emanating from an empirical origin. Prevention of the development of a croupous condition of diphtheria, in the stage where the characteristic patch is seen developed in the fauces, is often possible in the avoidance of using anything in the way of topical applications to the membrane, as it has been a matter of observation with me, in some of my earlier cases, that almost invariably as the throat improves in appearence to the eye, that the omnious laryngeal sounds that precede the development of croup have become regretfully apparent. Yet notwithstanding our treatment of diphtheria, whether strictly specific to the condition or symptoms as we find them, or under the employment of more empirical methods, we are too frequently confronted without any obvious cause, with what, alas, makes the bronchial development an alarming complication to an already difficult malady.

The statistics of the mortality after tracheotomy, as I have been able to gain them, I find to be ninety-four per cent. larger I believe than any of the operations now being performed under the guidance of our most intelligent surgeons, a record of mortality exceeding supra-pubic hysterectomy by twenty-four per cent. And yet how unjustifiable many of our more conscientious colleagues look upon the performance of such an operation, who would readily consent to the performance of tracheotomy; and yet hysterectomy succors a larger number in a hundred cases than tracheotomy has ever been able to attain. It teaches us, therefore, that if tracheotomy is the preferable method in our selection, that its employment should be advocated at the first signal of the impending danger (if it is to avail anything in our cause)—as in my experience I never knew of a case of diphtheretic croup but what became more

aggravated and the symptoms more alarming, notwithstanding my patient application of the potencies of what seemed to my mind the indicated remedies. In other words, my skepticism of the efficacy of medicinal relief in these cases is so pronounced that I should look upon the croupous development in every case as a calamity to my patient irrevocable, had not my good fortune introduced to me a method that has brought to me success in the past, and stands for me as a reasonable apology for any doubts and want of belief which I may still have. Notwithstanding my suggestion as to the advisability of the early performance of the operation, if at all, permit me to recite a case which will serve to show us that even that procedure will not always crown our efforts with success.

Somewhere about ten years since I was called upon to treat G. B., aged six years, who I found suffering with what seemed to me a case of diphtheria of moderate severity, and from the beginning I felt no serious apprehension as to his ultimate recovery. In conjunction with the remedies employed I remember, however, that I used various astringents for local application in the hope of destroying the offending membrane, which involved considerable of the area comprising the soft palate and fauces. I succeeded—that is in dissipating the membrane in the throat, but at the expense of developing the unfortunate evidence of a croupous exudation in the larynx. The patient's condition at this time, however, was excellent, and I availed myself of every adjuvant that might accrue to my patient's interest, without the remotest consideration of labor upon my part or expense upon that of the parents. Among others, I had a cooking stove brought into the room, upon which a kettle of water was kept steaming the vapors of lime, which the patient inhaled continuously for over twenty-four hours, without there being any evidence of improvement in the condition, while it was painfully apparent that the hoarseness was becoming more aggravated and that I was losing ground in the undesirable direction. My own experience in the method of steaming on patients I believe will be borne out by many of you when I make the statement that I never saw it do any good, while on the contrary I believe it to be one of the most successful means of exhausting our patients that could be devised or suggested. My patient not having improved under the steaming process, and my remedies, which I had applied as strictly symptomatic to the case as was possible, had proved themselves unavailing, I next thought of the desirability of tracheotomy. At this time the breathing was not particularly embarrassed, and I felt that the operation would never be performed upon a better subject than my patient as he appeared at this time. Cyanosis was not apparent, and he was not at this time suffering from the want of sufficient oxygen, but knowing the inevitable if time was wasted, I gained the consent of his parent to the performance of the operation.

The operation was performed in the usual manner, and the patient at once gave evidence of marked improvement, and I seemed to congratulate myself upon what seemed to have been fortunate judgment upon my part. The breathing became free at once, and, in every perceptible way, a marked improvement of the condition was evident. The benefits derived, however, were but temporary, and on the third day after the operation had been performed the patient died, owing to gangrene having developed at the point of entrance of the tube into the trachea. I do not to this day know what caused me the loss of this case and the development of the gangrene—whether it was due to a progression of the disease, or whether from the relaxing effects of too much steaming, for in this case it was used to an extent that would have gratified without limit the pride of any advocate of such a method, which, as I have before said, should, according to my judgment, be decried, as I do not believe that any case of diphtheretic croup was ever benefited to the point of cure by such a process.

I have performed this operation upon many occasions, during all of the stages where I believed it to be indicated, with but one recovery to alter the monotony of a continued history of failures. I believe that if tracheotomy is ever successful in effecting a cure, it is when it has been performed at an early hour, on the assumption that notwithstanding the employment of our usual internal remedies, that the first hoarseness of a croup, complicated with the characteristic diphtheretic membrane in the throat, is but the beginning of a process that leads to a certain failure of success, unless averted by a process better in efficacy and proven results than either. Previous to five years ago I despaired of saving my cases of croupous diphtheria owing to my lack of confidence, I presume, in the prevailing methods employed in the treatment of such cases. I may not have been as successful as some others in my results, but I must bear regretful evidence to a continued series of failures. Without this complication the development of the membrane or the intensity of fever never seemed to depress me, but I must confess my fear of success when the croupous complication had added difficulties to an already doubtful case.

All of this has, however, changed since success has followed my efforts in a number of cases, and I trust that the means which have proven successful in my hand may be employed by those of you who have not as yet availed himself of this special means, which discovery has suggested in the treatment of this disease and its most formidable complication. I refer to the mercurial vapor. It is a method introduced by

a very competent physician, and a friend of mine of the other school of practice, and has been, I am informed, applied by many members of his own faith. Yet I feel safe in saying that this will not of itself condemn its efficacy in your minds or judgments, and I simply offer my own experience in its employment, in the trust that the results obtained by its use in other hands may equal, if not exceed, my own.

The honor of the discovery of the mercurial vapor and its employment in the relief of diphtheretic croup is due to Dr. Job Corbin, of this city, who some few years ago had the unhappy alternative of having a tracheotomy performed upon one of his children or delve into the uncertainties of experiment in his efforts to save the life. His own experience of tracheotomy had been equivalent with many others in its fatality, and he declined the operation, believing that if his child must die he would not add to his present sufferings by the preparation and performance of a surgical operation in such an hour, although the late and eminent surgeon, Dr. Hutchinson, was in attendance for that purpose. At this crisis it was a happy thought that suggested the process of developing the mercurial vapor, which by its tissue irritating action promptly excited an effusion throughout the bronchial mucous membrane, dissolving thereby the tenacious and glue-like exudation, which by its presence, if undisturbed, would have soon produced a fatal termination. The successful result of this experiment, as I have intimated, was the introduction to the profession of this valuable remedial agent. Its employment in my hands has taught me to regard it with confidence in this formidable malady due entirely to its very favorable action in many cases where I have tested it. My method of employment is as follows: As soon as my patient gives the first evidence of the impending croup, I instruct the mother to make a canopy of sheets, which may, when the time for burning the powder arrives, be placed tent-like over the crib or bed in which the patient is lying. I have previously had placed upon the floor and under the crib two bricks which are placed side by side, sufficiently wide enough apart to admit of the placing of a spirit lamp. Over the lamp and resting upon the bricks is placed a tomato can, bottom upwards, through which a number of holes have been perforated so as to permit of sufficient circulation of air to fan the flame of the lamp when burning. All being now in readiness, a powder of hydrarg. chloride mite or pure calomel, consisting of thirty grains, is sprinkled upon the top of the can. At once a whitish smoke or vapor is evolved which fills the canopy and is inhaled by the child. I repeat in aggravated cases a powder every two hours, and lengthen the interval as the cough becomes less frequent and loosened. I recall no case since I have employed this method but what has given evidence of marked improvement, and where I have lost my cases it has been due, I believe that I may safely say, either from a too protracted delay in the employment of the vapor or from the prostration of a part of the diphtheretic disease. My own experience in the performance of tracheotomy, I believe, has been an average one, but yet in all do I remember but one case where I was successful in saving life, while in the others I have had the experience which I feel has been too often the painful one of other operators in seeing my patients one after the other succumb to continuance of the trouble that the operation was proposed to avert.

I may say it, and I do so unqualifiedly, that in tracheotomy I have no confidence, and in view of the memory which is a part of my experience, I can safely say that I feel that my record of failures justifies it. On the other hand, I recall a number of cases where by the method of the mercurial vapor success has followed my efforts and life has been saved.

While I have kept no tabulated record of my cases—which I now wish that I had—yet with your permission I will recite in a few words a case which I remember as being one of the most aggravated and apparently hopeless ones in my experience. One year ago I was called to attend N. W., a little girl six years of age, who from the start gave evidence of a grave form of disease owing to the intensity of the fever which introduced her symptoms. Upon examination of the throat I found upon the tonsils on both sides and the uvula a series of membranes that allowed of no uncertainty in the diagnosis of the case. The cervical glands at once became involved, and were enormously enlarged. On the third or fourth day I found that my little patient had lost her voice completely, although on the previous evening the hoarseness so ominous of the greater trouble was recognized by her parents. By this time it is needless to say that we had a fully developed condition of croup as a complication of the already existing diphtheria, as evidenced by the barking cough and whistling respirations, the totality of the symptoms being such as admitted only of a tracheotomy, or the mercurial vapor, or the consequences of a certain death which was sure to follow the progressing cyanosis, which process had already begun to be apparent. I at once had the tent of sheets erected, and began the employment of the mercurial vapor as previously described. A few hours saw in my patient a looseness in the cough, a relief in the labored and obstructed breathing, followed in a short time by a complete recovery. I might, were it necessary, repeat the details of other successful cases in my hands, but I offer the above as an example of the others, thereby making the task of repetition unnecessary.

Some of my colleagues and medical friends may

have employed this method in their own practice without having obtained the very satisfactory results that have followed my own experiences, but I may ask, Have they always been persistent in its use? Have they always arranged the details of preparation carefully and properly? Have they not too frequently done with this as with the unfortunate tracheotomies of their experience, waited too long! until the patient was moribund, then after failure in their efforts, stood ready not only ready to criticise and condemn this and any method as useless after the croupous symptoms have become pronounced and progressive.

Let me, therefore, in conclusion lay down a few axioms for your consideration:

First. Act early in all cases of croup whether diphtheretic or simply membraneous.

Second. If tracheotomy is to be performed and is not done early, remember that failure is reasonably certain owing to the damage already done to the lungs and heart by the stasis of decarbonated blood in these organs.

Third. For the same reasons if the mercurial vapor is to be employed, let it be remembered, as in tracheotomy, the only prospect of success depends upon its early employment.

Fourth. Remember that the *so-called indicated remedies* fail in their employment in this disease, which I may safely say I feel to be too true if a large experience in my own hands avails anything as evidence.

Fifth. Apply the remedies and supporting means of treatment within our reach as our judgments and experience best teaches us, but when croup with its certainty of a fatal ending is apparent, we are justified in using, and it is criminal upon our parts not to employ, any means however empirical which experience—which after all is our only teacher—suggests to us as being meritorious and proven to be of value. Much might be written upon this subject, but only to tire you with details which would of necessity be simply a history of constant repetition. We all naturally differ in our judgments, and view the same subject with a surprising difference of vision; but if my opinions are to be heard, I respectfully offer them at any value my reader may choose to place upon them. I can only say, therefore, as the last words of my paper, that as a matter of choice between tracheotomy and the mercurial vapor in the treatment of cropous diphtheria that I cast my voice and well rewarded experience in favor of the latter. May those of you who have not availed yourselves of this method do so with painstaking and care, and to those who have already done so, I trust that their experience may have exceeded my own in the abundant and happy results that have rewarded their efforts.

The Medical Department of the University of Pennsylvania has lengthened its compulsory course to four years.

CLINIQUE.

THE OPERATIVE TREATMENT OF CANCER OF THE UTERUS.*

BY H. I. OSTROM, M.D., NEW YORK.

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THE older belief that cancer, and by this term I mean both connective tissue and epithelial malignant growths,—sarcomata, and carcinomata,—is primarily a constitutional disease, a dyscrasia, is gradually giving place among pathologists to the newer teaching that the first manifestation of these malignant growths,—the neoplasm,—is purely local, a circumscribed cell derangement.

These radical changes concerning the etiology of cancer, have brought about a complete revision of our methods of treating this class of diseases, and have transferred them from the general practitioner to the hands of the surgeon for treatment.

I will, therefore, assume as a principal *motive* of the following brief remarks, that the treatment of cancer most in accord with our present knowledge, is its removal, as long as it remains a local disease, and its palliation, as soon as it becomes constitutional. The treatment of cancer, therefore, in a pre-eminent degree, hinges upon the progress the disease has made—for it will not remain stationary—the pathological stage at which we find it.

So much for cancer in general; let us now turn to our special interest, cancer of the uterus.

For practical purposes it is sufficiently accurate to place cancer of the uterus among the epithelial neoplasms, for sarcoma of this organ is so rare as to call for no more than a passing mention.

The most frequent forms are epithlioma, encephaloid, and scirrhus, and they generally begin in the cells and glands of the cervical mucus membrane, from which location the disease spreads by continuity, and to remote parts, by means of the lymphatics, possibly also in some instances through the blood channels.

Fortunately primary cancer of the fundus is very rare, for our success in operating on any cancer will go hand in hand with the exposed position of the primary disease focus. In a series of eighteen hysterectomies, abdominal and vaginal, I have met with only one undoubted primary cancer of the fundus, and this case I did not fully recognize until microscopical examination after the operation cleared the diagnosis. Otherwise I would have done a vaginal hysterectomy. The case however recovered.

The origin of a large proportion of the cases of uterine cancer is probably, some, at first, slight

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cell derangement of the cervical mucous membrane. This continuing to act, a cellular insanity follows, and the case is well on the road towards the malignant neoplasm of which we are speaking. But there is still nothing more than a local process, and it is well to bear in mind that this must be perfected, that is to say, the full malignant character of the neoplasm must be attained at its place of genesis before it becomes a general disease.

Now it is very evident that if we propose to operate for cancer of the uterus, this is the period when success may be obtained with the least mutilation, when the operation may be a truly conservtive measure; but it is scarcely necessary to remind you, gentlemen, that this period in the history of uterine cancer is generally passed over, either without attention, or with treatment, into which a true conception of the nature of the malady does not enter. We, therefore, in a large proportion of the cases, miss the opportunity for the most successful treatment.

The next period in the development of cancer of the uterus that concerns us clinically, is when the cells and stroma have attained their arrangement of perfect malignancy, and are ready to invade the uterus and neighboring structures. Of course it will be understood that these periods are not marked by any hard and fast lines; it is probable that the progress of uterine cancer is uninterrupted towards its complete development, but they are laid down here for the purpose of emphasizing the local origin of cancer, and its rational treatment as deducted from such an origin.

The second period is one during which the case is the most likely to fall into the surgeon's hands for treatment. We then find the characteristics of epithelioma well developed. The question of diagnosis need not detain us here, it is sufficient to know that the pathological process is established, and that the tissues in which it originated can not long bound its advances.

In this connection I submit, that by no method we at present possess, are we able to say exactly how much of the uterus is involved, for by the time the disease is sufficiently advanced in the os and cervex to attract attention, it is more than probable that the endo-metrium and the uterus itself have become involved. We have not yet reached the stage of pelvic contamination.

One of two courses is now open to us. We can, upon a theoretical limitation of the disease, either amputate the cervix, or curette the uterus, or we can perform the radical operation of vaginal hysterectomy.

It goes without saying that the latter must be attended with the greatest success, so far as removing the disease is concerned. The question, therefore, becomes one in which the severity of the operation, and its mortality, will bear a determining part.

Vaginal hysterectomy should not, in the hands of the abdominal surgeon, be a very formidable operation, and, with an improved *technique*, should give a lower mortality than at present—eight to ten per cent.—but even with this mortality, we must consider the probable results of the lesser operations, curetting and amputation of the cervix. These operations, *per se*, have no mortality, but in a very large proportion of the cases so operated the disease returns, and in a more aggravated form than at first. They thus become merely palliative, a method of treatment that it is difficult to justify—save upon the refusal of the patient to submit to more radical measures—when, even a more risky operation offers a reasonable prospect of cure.

I have curetted the uterus, and amputated the cervix many times, in almost every stage of disease, and in every instance in which the neoplasm has been undoubtedly cancer, the disease has quickly returned, assuming a more malignant form than the primary development. I have also thought that constitutional symptoms developed earlier after the operation, than they would have appeared had the case been allowed to proceed without interference.

I am therefore fast coming to the conclusion that curetting, amputation of the cervix, and all conservative operative procedures for cancer of the uterus, are not only in the vast majority of instances to be ranked among the failures to cure, but are to be regarded as positively favorable to return, and to hastening the constitutional extension of the disease.

This position may seem rather an excessive one, but I can assure you that I have reached it only after a study of the history of a large number of cases operated upon by myself, as well as the work of other surgeons. Mr. Lawson Tait, whose vast experience entitles his opinion to respect, refuses to touch any condition that he believes to be cancer. He will neither curette nor amputate the cervix, and as he condemns vaginal hysterectomy, he denies all such cases treatment. He says that formerly he performed conservative operations for uterine cancer, but that he always found that the disease returned and spread with greater rapidity than if left alone. But I am positive that I have seen cases in his clinic that would have been cured by an amputation of the entire uterus.

Let us now consider the radical operation at our command—vaginal hysterectomy. For this operation we have a present mortality of from eight to ten per cent., but we must not lose sight of the uncontrovertable fact, that the mortality of cancer of the uterus, if allowed to progress without interference, is one hundred per cent.

In a certain proportion of cases the disease returns after removal of the entire uterus, but the proportion is small, and even if larger, should not

be used against the operation, but rather serve as an earnest plea for the earlier adoption of radical measures. In my list of seven vaginal hysterectomies for cancer during the past three years, I have not lost a single case, and in only one instance has the disease returned. The radical operation in this instance was delayed contrary to my advice, and contrary to my judgment, I curetted the uterus about two months before, in deference to the desire of the patient and her family, to avoid the severer operation. I am convinced that the disease was aggravated by the curetting and cauterizing, and that if I had removed the uterus at the time that I performed the conservative operation, I would have cured my patient.

My advocacy, therefore, of vaginal hysterectomy, as opposed to other operations for cancer of the uterus, is based upon the following propositions:

I.—Cancer is primarily a local disease, and remains confined to the uterus for a certain length of time, but its exact extent is deceptive and probably early involves more than the cervix, its point of origin.

II.—Experience seems to prove that curetting and similar operations are at the best palliatives, and that frequently they aggravate the disease, causing it to return and spread with increased strength.

III.—The mortality of vaginal hysterectomy, even with our present methods, is not high, and if we regard curetting, amputation of the cervix, and like operations, in what I believe to be their true light,—as palliatives,—we must oppose a death rate of eight or ten per cent. to a death rate of one hundred per cent.—a certainly fatal issue.

My method of doing vaginal hysterectomy does not differ materially from that already proposed. We have by no means reached a perfect *technique*, improvement in our present methods must reduce our mortality.

Believing that rapidity of operating, if consistent with thoroughness, adds a very important element in favor of the patient, I make no attempt to ligate the uterine or ovarian arteries, but secure the broad ligament by means of long clamp forceps, which are allowed to remain in position for forty-eight hours, rarely longer. A single forcep of the form I use, on each side, I have always found quite sufficient to control the hemorrhage.

I have no definite rule about my first incision. Sometimes it is anterior, sometimes posterior, depending upon conditions that are found at the time of operating; conditions that are very difficult to define, or to clothe in words. We all know how frequently the surgeon is influenced, one way or the other, by these unspeakable, almost intangible, conditions.

I have never found it necessary to turn the uterus before removal, but after applying the clamp forceps, as already described, proceed at once to cut away the organ. Sometimes this is best accomplished with scissors curved on the flat, sometimes with the knife. After the uterus is removed the vagina and peritoneum are allowed to fall into their natural position, and the vagina packed lighly with iodoform gauze.

It has been a matter of surprise to me that the forceps cause so little irritation hanging from the wound. If the handles are carefully packed with gauze, they give rise to scarcely any discomfort.

They are usually removed in forty-eight hours. The packing, if saturated, is then renewed; this last dressing need not be changed for several days. But the same rules obtain in the dressings in abdominal surgery, that belong to general surgery, absolutely there is no difference.

Recovery after vaginal hysterectomy is frequently more rapid, and attended with less disturbance, than after a simple ovariotory.

42 West 48th Street

NEW OPERATION FOR REPAIR OF LACERATED PERINEUM.*

THE patient, having been prepared by the usual preliminary steps required for the old operation when under the influence of an anæsthetic, is placed in the lithotomy position, the left index finger being introduced almost its entire length into the rectum; a long, straight double-edged bistoury is made to pierce the tissues *in front of the anus at right angles to the vulva*, and, guided by the finger in the rectum, is made to penetrate the septum for two and a half inches upward, the incision being enlarged laterally to two inches as the knife is withdrawn.

The patient is then turned on her side, and on the points of incision being pressed together, a lozenge-shaped opening will be seen, and, when all sutures required have been introduced and are properly adjusted and approximated, the two cut surfaces are brought into direct apposition. The sutures are introduced by a strong cycle-shaped needle with the eye near the point, mounted on a handle, strong silver wire being the suture preferred.

The needle is introduced at the edge of the incision, and, guided by a finger in the rectum, is made to travel *under* the cut surface to its full depth above, describing the arc of a circle; and, on the point of the needle appearing *directly opposite*, it is threaded with the suture and drawn through. On the ends of this suture being drawn together with the fingers, a good idea can be formed of how many additional stitches may be required. When all considered necessary have been inserted and approximated, a finger of each hand passed into the rectum and vagina will at once recognize the gain in thickness of the septum.

* Duke, *Times and Register.*

the external tissue being pushed fully an inch forward from the anus and forming a thick and solid perineal body.

The incision being a deep one, on union taking place between the raw surfaces, a considerable amount of support must be afforded in cases where a pessary is required, or where there is much tendency to prolapse of the uterus or vaginal walls. My experience of the operation, though up to the present limited, has satisfied me with the results, and, there being *no loss of tissue whatever*, should the operation fail, it can not add any difficulty to a subsequent one.

Even should the perineum be lacerated to the verge of the anus, what I describe can be done. I find that leaving the sutures for ten days is generally sufficient, but if I am in doubt as to the union being strong, I cut the wire, but leave it *in situ* for a day or two longer, thus affording some support, and relieving the strain on the edge of the suture holes, and I also support the parts by long strips of adhesive plaster carried from hip to hip over the new perineum.

The wire should be stout and not too tightly twisted.

The advantages of my plan of operation are briefly these:

1. The simplest of performance as yet proposed, no danger of hemorrhage, the surface when dry being brought together.

2. No danger of sepsis, as the incision is not open for the admission of any discharge from either vagina or rectum during the healing process.

3. No loss of tissue, and consequently no harm done should the operation fail.

METHYL-BLUE IN DIPHTHERIA.

DR. H. BEYER, of Stapleton, S. I., says that fifty cases of *well-marked* infantile pharyngeal diphtheritis have been successfully treated by him during the last six months by the local application of a mixture of chemically-pure methyl-blue and powdered sugar, two parts of the former to ninety-eight of the latter, controlling the fever with small doses of acetanilid and sustaining the vital forces with extract of beef, egg and milk. The methyl-blue he employs is entirely tasteless and free from all deleterious effects (Lehr & Fink, 128 William Street, New York). The manner in which he uses it is as follows: The patient's head is held in a horizontal position, the tongue depressed, and from five to ten grains of the powder are freely applied to the pharynx. This is repeated every two hours, or as often as new crops of exudation make their appearance. Sudden elevation of the head must be prevented, the mouth kept closed to prevent spitting, and no drink or food given for ten or fifteen minutes before and after the application.

Retronasal and laryngeal diphtheritis has in none of the fifty cases above referred to made its appearance. Where the nose or larynx was involved at the beginning, he could not claim such good results, owing to the already enfeebled condition and the great difficulty of applying the remedy, still he has done better with it than with any other treatment. Washing the retronasal and nasal space with boiled water and applying the powder with the Devilbiss blower have given him the most satisfaction.

He experienced great difficulty in getting the right blue; it is on that account that he mentioned Messrs. Lehr & Fink, who are agents for this article; at the same time, he believes it to be the same as methylene-blue made by Merck (see Merck's Bulletin, January, 1891).

Dr. Beyer also reports to us a severe case of post-scarlatinal retro-pharyngeal and nasal diphtheritis, from which the following conclusions have been drawn:

1. The boy (D. J., five years old) has had diphtheritis only lately, from February 7–10, with the rest of the family, consisting of father, mother, aunt and three children, D. being the oldest.

2. The boy was taken February 22d with scarlet fever of an unusually severe type and complicated with nephritis.

3. On the evening of the 26th the fever returned with great severity (temperature 105) and the next morning the retro-pharynx, post-nasal and nares were filled with the characteristic exudation of diphtheria.

4. The boy has taken no medicine of any kind except the blue.

5. The exudation *was* diphtheria, as proved by a careful microscopical examination establishing the presence of micrococci (microsporine of Klebr) and Loffler baccilli, stained deeply with alkaline solution of methyl-blue.

6. The boy recovered so quickly because these micro-organisms were effectually destroyed, thereby preventing the spreading and the reinfection of the disease.

7. The boy is making a good recovery—no sequellæ are as yet perceptible.

8. The blue itself is not only a true microbe-killer but at the same time as a soothing and tranquillizing agent, as proved by the sense of relief experienced by all patients after the applications, even in cases of a severer type.

In short, he says, I believe that in this remedy a means has been found on which reliance can be placed, and which even in the most desperate cases of laryngeal diphtheritis offers us the best means to save the patient, as would seem to be proved by the cure of such a case as came to my hands after having been given up as hopeless by my confreres.

RETROSPECTIVE THERAPEUTICS.

BY ALFRED K. HILLS.

Banana-Juice for Chronic Bronchitis.—The juice of bananas is recommended as one of the best remedies in chronic bronchitis with insufficient expectoration and marked dyspnea. A drachm eight or ten times a day during the first days is usually prescribed, and later the dose can be diminished. The syrup is prepared as follows: Cut the fruit in slices and place them in a glass jar; sprinkle with sugar and cover the jar, which is then enveloped in straw and placed in cold water, and the latter is heated to the boiling point. The jar is then removed, allowed to cool, and the juice is poured into little bottles.

Ammonia Soap for Acne Punctata (Edward Blake, M. D.; *Medical Era*, Feb., 1891).—Acne punctata may be removed by means of an ammonia soap which I divised ten years ago for the purpose. Its composition is as follows:

Liq. ammoniæ.....M. 10 to 30.
Ætheris.....ʒ j.
Saponis moll.....ʒ j.
Keep air-tight.

First foment a small portion of the skin with very hot water, then apply the soap firmly with the ball of the thumb, as if cleaning off varnish from an old oil painting, and very quickly wash away all vestiges of soap. Great care must be taken in using this soap on sensitive parts or with delicate skins, else pretty severe erythema may be set up.

Careful dieting, total abstinence, sharp outdoor exercise, hot baths, Turkish or electric baths assist matters.

Systematic lung hygiene, *i. e.*, enforced expiration followed by prolonged pre-nasal inspiration, brisk towelings, general effleurage, or skin-rolling, sedulous avoidance of excitement, of ices, and of cold beverages, no sea bathing, and the exceptional use of the cold bath, soft woolen clothing, etc., and the use of sulphur or arsenic as internal remedies according to indications—these are the main outlines of treatment, to be modified by the special exigencies of individual cases.

Dead Shot for Tape-Worm.—Bernard Persch says that he has found nothing to equal the following treatment, which is as certain as anything in medicine generally gets to be: In the morning early gives a drop of croton oil dissolved in chloroform, and the solution mixed with an ounce of glycerine. On retiring that same night, the patient is given a mild laxative.

Massage in Headache.—Dr. Norstrōm, finding that a good many cases of headache occur where, though the symptoms are more or less like those of migraine, the remedies suited to that affection are of but little use, examined the heads of such patients carefully, and came to the conclusion that the pain must depend upon inflammatory thickenings, existing at the insertions of various muscles, especially the sterno-mastoid, the temporal, the scaleni, the trapezius, and the occipito-frontalis. These indurations do not usually produce any local pain, and therefore are generally unnoticed both by physician and patient. They are commonly the result of "taking cold," and the headaches they cause can be traced to changes in the weather. Dr. Norstrōm obtained excellent results by regular massage of these indurated spots, the sittings lasting for about a quarter of an hour. Similar treatment is also efficacious where the headache is due, as it sometimes is, to enlarged lymphatic glands. Of course, little result can be expected from massage in headaches of anemic or of hysterical origin, or where there is organic or cerebral disease.

Phosphorus in the Treatment of Sciatica.—One of the most unpleasant feelings an honest doctor can experience, is created when he sees his patients continue to suffer pain while he is unable to give them the desired relief, writes Dr. A. K. Bell, in the *Med. and Surg. Reporter*. Such is often the case when one treats sciatica; but I have now treated three severe cases with such marked relief that I have no hesitancy in recommending to my fellow practitioners the elixir of phosphorus, which has served me so well:

CASE 1. A negro man about forty years old, who had always been quite well, began to suffer. The pain came on gradually, beginning in the gluteal region, and running down the posterior portion of the leg. In two or three weeks from the first symptoms he was so much crippled that he was compelled to go to bed. He had been treated about one month by two physicians when I saw him. In two weeks of treatment I gave him many things, including morphia and atropia combined and separate, with the result of only a few hours of relief. After the effects wore off he would suffer as intense pain as before. After about two weeks of such treatment I gave him elixir of phosphorus. In a few days after the beginning of this treatment he rested better at night from pain, and in one more week he was dismissed as cured. One year afterwards he had another attack which yielded at once to the treatment with phosphorus alone.

CASE 2. A white woman, forty-two years old, suffered three months with severe pain from the gluteal region down the posterior portion of the leg. She was under treatment all the time, and all the remedies common to the cure of sciatica were used; but her only relief from pain was gained by using morphia. I was called to see her, and at once ordered the elixir of phosphorus, using nothing else. In one week the woman began to improve, and in another week she was dismissed. She is my next door neighbor, and I have not heard of her complaining since.

CASE 3. A mulatto woman, about forty years old, began to suffer similar to the others one year ago. She was confined to bed and had been under treatment six weeks; had taken no anodyne, and had suffered intense pain all the time. When I first saw her, she could not turn herself in bed. I gave her morphia and atropia combined, to relieve the pain. She was very weak and emaciated. I ordered tartrate of iron and potash for one week, when she gained color and strength. Then I gave the phosphorus, and in two weeks she was up and walking about.

I can not believe these are *post hoc*, but *propter hoc* cases. I hope others will try this preparation, and should they or should they not have the same good results as I, I would be glad to hear from them.

Capsicum in the Pneumonia of Drunkards.—Dr. Netschæff (*Wien. Med. Presse*) recommends the tincture of capsicum in pneumonia occurring in alcoholics. He uses the tincture of capsicum annum according to the following formula:

℞ Tincture of capsicum.....1 drachm.
Water.....5½ ounces.
Syrup.....5 drachms.—M.
One teaspoonful every two or three hours.

The pure tincture in doses of 20 drops, well diluted, may also be employed.

Capsicum has a good record (Hering's G. S., Vol. III.) as an antidote to alcohol and for pleuro-pneumonia when "after each explosive cough (and at no other time) there escapes a volume of pungent, fetid air."

Nitro-Glycerine in Gas Asphyxia.—Dr. C. W. Goss, of Lancaster, Ohio, writes to the *New York Medical Journal* an interesting account of a case of gas asphyxiation treated by means of nitro-glycerine, hypodermatically applied. There are now on record three or four other cases of poisoning by illuminatory or coal gas in which nitro-glycerine has been used, as one of the parts of the treatment, and recovery has been the result or sequel in every case. In these cases, the hypodermatic use of the drug has been most promptly followed by a manifest improvement in the patient; the

dose has not been repeated in every case at so short intervals (ten minutes) as in this case of Dr. Goss. It may hereafter be determined that a good recovery may be obtained at intervals of half an hour to an hour, according to the pulse re-action. It may also be determined that, as is suggested by Mr. Goss, the only treatment that is needed is that by nitro-glycerine, and that the battery, or the injection of stimulants, or the practice of artificial respiration, may not be called for. It has been assumed that the carbon monoxide, or whatever other ingredient it may be in the oleflant gas that acts as the poison, did its harm as a suffocant, rather than a heart-depressent, whereas the reverse is likely to be discovered to be the fact, if the observations recently made as to the effects of nitro-glycerine shall be confirmed.

Chloroform in Convulsions.—Inhalations of chloroform are invaluable in arresting convulsions in children of two years or under. Give them a whiff of it while in the convulsion. The paroxysm having been broken, appropriate remedies should be given to prevent recurrence.

Cold Applications as a Remedy for Palpitation.—Dr. Gingeot (*Rév. Gen. et Clin. et de Ther.*) recommends as a valuable remedy for palpitation—one that has proved serviceable to him—the application of cold to the precordial region. Attention must be paid to the manner of applying cold. The simplest plan of all is to apply a wet sponge over the heart in the morning before dressing. At night, when in bed, the patient or an assistant may put a cold compress over the heart, well covered with dry bandages, to retain moisture and prevent any wetting of the clothing. When this compress is warm, the patient may remove it, and will probably fall asleep. There are objections to the ice-bag, one being the condensation of insensible perspiration upon the surface of the skin. The ether spray is a simple and convenient method of refrigeration. With proper instruction as to necessary precautions in the use of ether, the patient can apply cold in this way at any hour of the day or night. Palpitation of nervous origin seldom fails to be greatly benefited by the application of cold; and a certain success often follows its use in cases of palpitation due to organic disease. Equalizing the heart's action will often prevent an increase in its size. It is also useful in aneurysm and passive dilatation.

Boroglyceride for Aphthæ.—The *Medical Mirror* says: Boroglyceride, locally applied, is infinitely superior to all other local applications for aphthæ or thrush, in the oral cavity of nursing infants.

Herba Rubi Idæi in the Treatment of Dysentery.—Dr. J. G. Carageorgiades, of Limasol, Island of Cyprus, reports in the *Satellite* that herba ruba idæi is, in that country, "a popular medicine, very useful in dysentery, both acute and chronic, as well as in certain cases in which prominent or permanent symptoms of catarrhal affections of the stomach and intestines are present. It is given in infusion (of 2 to 6 drachms — 8 to 24 grammes) per diem; I prescribe it usually in powders (of 10 to 20 grains — 0.66 to 2 grammes), given every three hours, with equal success.

"From my own experience, both in hospital and private practice, I feel able to say that it has proved, indeed, a sovereign medicine against dysenteroid diarrhœa."

Boro-Citrate of Magnesia in Urinary Calculi.—Dr. N. Perez (*Albany Med. Annals*) refers to the case of a boy four years old, having a large calculus in his bladder. Before performing an operation, he tried the application of the boro-citrate of magnesia, of which he gave fifteen grains dissolved in an ounce of syrup, one to three tablespoonfuls every day. After three days of this treatment a good deal of white sediment appeared among the mucus in the urine, which continued about one month, the other phenomena disappearing.

Apostolis Method in the Treatment of Uterine Fibroids.—Dr. Hayes, in *Medical News*, says that one of the most clearly demonstrated facts of the apostoli method, is that by means of it all uterine hemorrhages, not puerperal, can be arrested.

One of Dr. Hayes' patients, suffering from menorrhagia, came to his office stating that she was drenched with the discharge, the hemorrhage having occurred when she was some distance from her home. Dr. Hayes used the intra-uterine electrode connected with the positive pole, and passed a current of from 60 to 80 milliampères for eight minutes. The patient went home, a distance of three miles, and was in bed the remainder of the day. On the next day she was about the house and the flow had nearly ceased. This period was by far the least severe that she had had for several months, and the amount of time spent in bed was three-fourths less.

Prof. George S. Hilliard's Wonderful Success in the Cure of Stammering.—This is an age of discovery, an age of science, an age of improvement. Just before this number of the MEDICAL TIMES goes to press, ten physicians have had an opportunity to witness a wonderfully scientific cure of an inveterate case of stammering, the work of Professor George S. Hilliard, of 235 West Thirty-fourth Street, the celebrated elocutionist, who is now, or at least should be known as, a great specialist in the cure of stammering. Prof. Hilliard, as an instructor in elocution, ranks among the very first in this country. He has been a great student, and his methods are his own. He is known for remarkably quick results in all lines of his work, which is in consequence of his extensive study and a great experience as an instructor in the training of voice and speech. Although a person might be afflicted with bad stammering for a term of forty years, Prof. Hilliard is willing to take almost any such case, present him to any physician, showing the sufferer's terrible state, and afterward in a short time, a matter of a few weeks, present him again without any stammering, and having the possession of an easy, natural speech. If the patient is afflicted with movements, to also stop all movements. This is a wonderful thing to do, and deserves the support of the medical profession. The cure is permanent, unless the patient or student neglects the principles of their training. They are thoroughly developed for the governing of the new speech acquired, and thoroughly educated as to their individual peculiarities and all the different principles that relate to good expression, and in using the perfect speech the old habits and inclinations are entirely obliterated. Several physicians in the city have had an opportunity to see and test quite a number of Prof. Hilliard's cases, and sometimes have seen the patient at different times after the cure was first produced, and in every instance the results were satisfactory. The case under consideration which the ten physicians have lately tested to their satisfaction is that of Mr. Frank Paulscraft, of 415 West Fiftieth Street, city. He had had his terrible affliction since he was four years old. His father, Mr. William L. Paulscraft, had for years done all in his power to have his son relieved, but to no purpose. Among other efforts Mr. Paulscraft spent a whole year at a well-known school for stammerers, and gave it up without having made any improvement. In the present, first examination, he presented an obstinate and inveterate stammering, with some contortions and spasmodic movements, especially of the lower limbs, which compelled him to stride about in an outlandish manner, sometimes finding himself a distance of six or eight feet away from his original position, in trying to say a short sentence. In sitting, his movements were also most undesirable. They were principally from the hips upward, the body being thrown violently forward, sidewise and backward. As he was first presented to the different doctors for examination, it was a pitiable case. On his second visit, and only a very short time intervening, he spoke naturally without an apparent effort, and with no movements whatever, either in standing or sitting. He answered all sorts of questions, counted, said every sen-

tence named. Could give mathematical amounts, could read aloud from any material.

The cure was a marvellous piece of work, and Prof. Hilliard revolutionizes the whole general theory of what stammering is and how it should be treated. The following physicians witnessed this interesting case, and they are willing to vouch for what they saw, and for the great good that Prof. Hilliard is capable of doing: Dr. E. L. Macomb Bristol, 373 West End Avenue; Dr. Daniel C. Logue, 225 West Thirty-fourth Street; Dr. Daniel H. Smith, 223 West Thirty-fourth Street; Dr. Arthur T. Hills, 129 West Eighty-first Street; Dr. E. W. Burnette, 157 West Thirty-fourth Street; Dr. F. P. Hoover, 139 West Thirty-fourth Street; Dr. Gordon Frazer, 321 West Thirty-fifth Street; Dr. B. J. Blankman, 240 West Thirty-fourth Street; Dr. William C. Kennedy, 203 West Thirty-fourth Street; Dr. Alfred K. Hills, 465 Fifth Avenue.

Thromboses of the Mesenteric Veins.—M. A. Pilliet (*Le Prog. Med.*) refers to two cases under his own observation, comparing them with several cases reported by other writers, showing the two main characters of the condition, the gangrene of the mucous membrane and the occlusion of the veins.

The first case was that of a man seventy-two years of age, athletic, robust, obese, suffering with varicose veins. He was suddenly seized, while sawing wood, with an acute pain in the lower part of the abdomen, soon followed by nausea, vomiting and tympanites. The next day he entered the hospital, with the abdomen distended, painful; no stools, vomiting profuse of black coffee-looking substances. Died in the night. The second case was a female of seventy years, large stature and obese, who died suddenly. The autopsies showed a portion of the large intestine presenting a deep-red discoloration, in the one case covered with a new membrane, thin and fragile, in the other the color faded off into the normal color of the intestine. No other trace of peritonitis. On opening the intestine there were found discoloration of the mucous membrane over a space of 40 to 60 c. m., showing a gangrenous condition. The mesentery was thickened and hard. On section the veins were found dilated, filled with red clots, partly fibrinous. Microscopically the layers of the mesentery and the tunics of the intestines were infiltrated with masses of red globules. The tubular glands and villosities had disappeared in great part, there remaining only the fimbriated chorion with necrotic condition of its superficial portion. In the second case the epithelium of the villi had entirely disappeared, while that of the glands was composed of necrotic cells, which were opaque, strongly coloring under the reagents. They were homogeneous in contour, and not a single nucleus could be seen even after hematoxylin or carmine of alum. The tissue of the chorion was gangrenous in many points and without nuclei. The muscular fibers were soft and of deeper color as the peritoneum was approached. In many of the glands there existed considerable accumulations of spherical microbes, obstructing them, and strongly fixing the coloring matters. The liver showed an embryonic infiltration in spots, with cellular proliferation. There were extended patches of fatty infiltration. There were also intralobular masses characterized by small foci of round cells surrounding ilets of necrosed hepatic cells, and presenting the characteristics in situation and form of infectious infarcts of the liver appearing in eclampsia, pneumonia, septicemia, typhus, etc.

The other cases quoted all showed the circumscribed violet, or reddish brown discoloration on the intestine, with many of the other pathological conditions given. Lighter forms of this sphacelated condition may exist as shown by a reported case. Localized lesions may be observed also in hernias.

We have then symptoms of brusque onset; the abdomen becoming rapidly tympanitic and painful; there may be hematemesis, but stools are wanting. The course is rapid, with death in two or three days at the latest. The symptoms point to intestinal obstruction, but there is no fecal vomiting. It is evident that the lesions of intestine and mesentery are primary. The tunics are infiltrated with thick blood, the mucous membrane sphacelated, the epithelium necrotic or absent, with plugs of microbes in the glands. The venous capillaries contain thrombi, the mesentery infiltrated, with clots extending into the large mesenteric trunks.

The diagnosis is difficult. First we must distinguish the adhesive portal phlebitis. If the thrombus can reach the portal vein and thus constitute an adhesive portal inflammation, in an anatomical sense, it is also true that the affection thus described by Frerichs differs from the above conditions by its symptoms and course. It is marked by a rapid ascites, easily produced, with great dilatation of the accessory portal circulation and subcutaneous abdominal veins. There may exist also hematemesis and melœna; but there is no arrest in the schools; besides, the evolution of the ascites presupposes a certain time, and death does not occur with the phases noted in the majority of the cases reported. There may be undoubtedly mixed forms, for Frerich's gives facts reported by Virchow and Cohn, relative to localized thromboses of the mesenteric veins, but in general when these latter alone are taken, there exists only a limited extent of gangrenous intestine, the evolution is special and differs from that of portal thromboses.

Emboli of the superior mesenteric artery may produce hemorrhage infarcts and death by perforation. The course is then as rapid as in venous thrombosis and the diagnosis almost impossible, unless a well-marked vegetative endocarditis has existed previously. The same may be said of intestinal occlusion, acute poisoning, and for those forms of peritonitis without much febrile reaction, and which simulate internal strangulation. The difficulties which might appear to a surgeon in case of contemplated laparotomy are evident. Cirrhosis, cachectic thrombi, traumatism have been assigned as causes. In the two cases reported the obesity of the subjects are to be noted, and it may be questioned, whether it does not have an influence on the venous stasis, and if we may not have a condition similar to typhlitis in the obese with its seat in the large intestine. But these are only occasional or predisposing causes. It was evident that the thrombus had ascended and come from the intestines. It was then an intestinal lesion, and seemed to be of an infectious or toxic nature.—T. M. S.

Action of the Positive Pole of the Constant Galvanic Current on the Bacteria Anthracis.—M. Apostoli (*Le Prog. Med.*) says: 1. The action of the current upon cultures is in direct proportion to the intensity in milliamperes. 2. The intensity of the current and not the duration of the application is the chief factor. 3. A current of 300 milliamperes and over always kills the bacteria. 4. One of 200 to 250, for five minutes, does not surely destroy. One of 100 milliamperes produces an attenuation which increases with the intensity of the current. 5. These effects are independent of the thermic influence which accompanies all electrolysis. 6. The positive pole only has an influence over the bacteria, and is due to the fact of the separation of the acids and oxygen.—T. M. S.

The Utility of Catalepsy.—A young girl, aged seventeen years, was seized with a violent attack of catalepsy, and fell into a canal. A boatman plunged into the water to rescue her, but was unable to bring up the body until twenty minutes had elapsed. The most singular fact is that when brought ashore, the girl presented all the symptoms of catalepsy, and, after this long immersion, was restored to life.

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LET US REASON TOGETHER.

A LETTER recently received from an esteemed and valued correspondent who occupies a front rank in the profession as teacher, writer and practitioner, says "I would gladly give up the distinctive name 'homœopathy' and 'homœopathic,' but until the Old School ceases its attacks and its attempts to crush us, and the graduates of our institutions and the believers in our philosophy are admitted to the army and navy on equal terms with them, I must cling to the name."

No one who knows our friend can doubt for a moment the earnestness of his convictions, and from his standpoint the strength and cogency of his reasoning. Admit the premises and the reasoning is undoubtedly correct. But are the premises correct? Is the war upon the homœopathic school based upon an opposition to the principles of homœopathy, as they have been understood by the ablest thinkers in the homœopathic school in the past and present? What are those principles? The careful student of the philosophy of the New School as taught by Hahnemann, at once recognizes that the administration of drugs is only one and not by any means the most important factor in that new philosophy, which taking nature as its teacher and guide has revolutionized the medical practice of the world. Other factors upon which Hahnemann placed even more importance than the administration of drugs, and without the observance of which drugs were comparatively useless, were physical development, the harmony of all the organs, absolute cleanliness, sunshine, pure air and water, out of which has been developed the trained nurse, the germ theory, and the antisepsis of modern time in which all now believe and practice.

A simple incident in Hahnemann's life gives a forcible illustration of his philosophy. In his old age while living in Paris a dear friend called upon him, and with the tears coursing down his cheeks, entreated the white-haired old man to visit the child of a friend which had been given up by his physicians. On opening the door of the sick room Hahnemann uttered an exclamation of indignation. The windows were tightly closed, the curtains down, shutting out every ray of light, and the fever laden air almost stifling in its putridity. With a quick, sharp command, "Open the windows, the air is poisonous," he threw the blankets from the child and bathed the face with cold water. Soon the fitful breathing became more regular, the color slowly came back to the face and the film faded from the eye. Leaving a little medicine and giving positive directions Hahnemann left the room, and the child called back from the verge of death slowly recovered. Would the drug have been of any avail without the sunlight and the fresh air and the water? In the recognition of the fact made clear by the philosophy of Hahnemann, that disease was not an entity to be killed by a bludgeon or tortured into subjection, but that nature was all powerful and must be aided to do its work by agents which would harmonize rather than paralyze, the whole medical world started out of its night into that higher scientific life, in which the keynote of all future success and development in our profession was struck.

Is our friend quite sure that the opposition of the Old School is not due more to our exclusiveness, more, when in the progress of events we have so much in common, to our forever ringing the changes upon the word homœopathy, which certainly does not represent our practice, than to any of the factors of our therapeutics or our philosophy?

It is because we love those principles which have formed a part of our professional life for forty years, and have seen them influencing and moulding the medical world, bringing it more and more in harmony with nature, that we cling to the institutions which have grown up under their fostering care, but we would so shape them as to place them and ourselves right before the world, in a position where we are not all the time compelled to explain ourselves and to stand on the defensive, but doing away with the objectionable feature—the name—accomplish by tact, by diplo-

macy, by good practical work, results we can never reach by everlastingly waving the red flag and stultifying our assertions every day in our practice.

We have talked with members of Congress, admirals and generals, Generals Hancock and Grant and Sherman among the rest, all of them looking at the matter from a statesman's standpoint, and they have all said it would be impolitic and lead to endless confusion if schools of practice were recognized in the army and navy. General Hancock, in discussing this subject, said: "Drop your distinctive designation as homœopathic physician or surgeon, and the army and navy are freely open to you and you can practice as you please. The majority of army and navy officers would infinitely prefer men of broad and liberal education in medicine, familiar with homœopathic therapeutics, to any other." If the medical board refuses to accept those whose affiliations have been with the homœopathic school, they could be very quickly brought to terms by the Secretary of the Army or Navy. We saw this illustrated in the Civil War when Dr. Sumner, one of the founders of this journal, was refused a commission in the navy because his affiliations had been with the homœopathic school. The Secretary of the Navy, Gideon Wells, gave the Board such a stinging reprimand that the commission speedily followed, and they were very careful how they again trod on the Secretary's toes.

The question with the TIMES is not one of affiliation with any school any further than they maintain the principles of medical liberty, of scientific progress and of equal justice to all. The TIMES has nothing to conceal; it believes in the unity of the profession, but only upon the ground of that mutual toleration and respect, the outgrowth of earnest work in a profession, which no one dogma fitly represents. No one has fought more earnestly for medical liberty and for medical progress than the TIMES, and while it would gladly see all ranks of the profession more closely united and working more in harmony, it holds with a grasp of steel to essentials, to principles and work which have stood the test of time and the scrutiny of experience and scientific investigation, but is always willing to discard non-essentials if they stand as a stumbling-block in the way of progress. At the commencement of a new year of publication, the TIMES urges upon every one of its readers to see if there is no little mote of prejudice, of intolerance and obstinacy in his own eye, and, if so, to pluck it out that it may see with clearer vision the world of truth around us.

MAKE HASTE SLOWLY.

THE keynote of a wise and successful legislation, in which the welfare of the State is the first consideration and the rights of no man is placed in jeopardy, is the old proverb, "Make haste slowly." If the legislature last year had inaugurated its work of "care for the insane" by abolishing laws made fifty years ago with all their patchwork of amendments from one decade to another, and formulated a new code in which was embodied all the good of old laws with the new ideas brought out in a generation of active progress in the treatment of mental disturbances, a system of care for the insane would have been inaugurated which would be a model for the world. Instead of treating this most interesting and important subject as a whole, it has been taken up in detached portions and a part, and a very important part it is true, forced to the front, out of time and place, working great injustice to many and checking the development of what might have been a harmonious plan, in which equal justice would have been done to all. The transfering of the indigent insane from county almshouses to State hospitals, making them wards of the State and under its direct care would, at the proper time, have been a very wise step and received the indorsement of almost every philanthropist in the State. But there is no question in the minds of business men, that it should have followed rather than preceded the appropriation of $440,000 made at this session of the legislature for the erections of buildings to accommodate the 800 patients from the almshouses for which their is no room in the State hospitals. As it is, before the new buildings can be erected, the State hospitals will become so crowded, they are overcrowded now, that but very little can be accomplished in the way of treatment. Of course the death rate will be increased and the cure list diminished, but under the wise legislation, which in this State comes sooner or later, we are confident the evil will in time be remedied and ample provision made in the near future for the reception and care in our State hospitals of all cases of insanity who may apply for admission. We do not for one moment consider it possible that our legislators contemplate devoting our State hospitals for all time simply to the reception and treatment of the indigent, but by a hasty legislation, have been compelled to accept the present plan as a temporary expedient. Steps have already been taken by the recent appropriation to remedy the trouble in part. But it seems to us our legislators, in their eagerness to provide the best possible care for the

indigent insane, have unwittingly placed the State in the humiliating position of going back on its word and repudiating its obligations.

Let it be remembered, that when the Homœopathic Asylum at Middletown was established, all the asylums in the State were under the direction of Old School physicians. The philosophy of Hahnemann covered not alone the application of drugs but included general matters of hygiene, absolute cleanliness, pure air in abundance, pure water, a careful study of food and last, but not least, the vitalizing power of sunshine and mind acting upon mind. Nature was looked upon as all powerful, and the skill of the physician was directed to aiding it in accomplishing its work. The philosophy of the New School seemed so important and to promise such rich results in the care of the insane, that a large number of influential citizens purchased a tract of land nearly a mile square and obtained a charter for an institution to be under homœopathic care and direction. The results have been more than was anticipated, and the institution stands to-day second to none in the world in its record of work accomplished.

It is asked as a matter of justice, which we think no one after a careful examination of the facts will deny, that while the hospital receives from its own district all cases of insanity who apply, the real intent of the institution and the pledge of the State be carried out in permitting it to receive patients from any part of the State for whom homœopathic treatment is desired, on the commitment of a judge of a court of record or superintendent of the poor. The amendment asked for is so just that we think there can be no possible doubt of its being granted.

MEDICAL SCIENCE vs. DOGMATISM.

UNDER the title of "The Highlands of Medicine," a recent editorial article in the *Journal of the American Medical Association* deals with the above subject in a truly philosophical spirit. The most important distinction between the scientific man and the mere empiric, lies in their methods of regarding and applying facts. The leading teachers and writers in all the exact sciences, are particularly noticeable for their modesty of statement—only claiming that from their experience and the evidence before them such and such facts *appear* to be true. Often these intellectual chieftains differ widely; then their arguments are calmly presented, and the supposed facts become a matter of study and criticism, in the consciousness that a wider knowledge may reveal errors on both sides. On the other hand, there is a certain class of medical literature and teachings, whose tone is so positive and dogmatic that every mature and well-trained mind at once suspects them to be unsound. Many excellent teachers err in supposing that unless they state the facts of medicine in the most positive way, they can never impress the student. Often textbooks are written in this spirit, and readers who accept their doctrines as final have much to unlearn in after life. While it is not always true that the positive dogmatic man, on questions of science, *is a quack*, it is true that successful quackery depends mainly on positiveness with which its conclusions are proclaimed. As Darwin says: "Ignorance more frequently begets confidence than does knowledge." To-day there are far too many medical teachers and authors, still wandering in the very lowlands of science, who assume that every fact which seems to them established, is final and unchangeable; that there are certain great basal truths in medicine absolutely fixed, and that the number of these should be constantly increased. To these men the science of medicine is merely a hunt for new fixed ideas. They never have broad comprehensive views of their subject. They do not realize that medicine, like other sciences, is still in its infancy. The anatomy of the body, outside of a few facts, is only partially ascertained. Physiology is a mass of unproved hypotheses; the laws governing diseased conditions are equally unknown. In chemistry, the atomic theory is still a theory only. In materia medica a most bewildering mass of statements and assumptions follow each other, like the shifting scenes of a panorama. In surgery and the practice of medicine, the methods and remedies that spring up in a night, are like the troubled waters of the ocean, incessantly changing and taking on old and new aspects. Yet with all this confusion of hypotheses and apparent facts, there is a tremendous movement towards some great truth or ranges of truths, which can only be seen from a higher point of view. Every medical man who has gone up far on the frontiers of medical research realizes this, and is startled by the fact that all these successive theories in medicine are but stepping-stones and roads of advance, to be abandoned further on. The physician who from his inner consciousness, or from a mass of statistics, brings out some new speculation which is accepted because of its reasonableness, or the author's reputation, is sadly deluded if he supposes he has found a final truth. A few years pass, and it is replaced by other and wider theories, and if we believe the modern doctrine of evolution, this birth and death of theories

is only the advance of mind towards the manhood and godhood of the race.

These views are illustrated in the present excitement over the announcement of a new remedy for consumption. Many of the essays, lectures and editorials on this topic have startled the reader by their positive completeness and clear conclusion that almost a millenium had arrived for the poor victims of phthisis. The modest statement of the discoverer that so far, there were many reasons for supposing that such and such results would follow the application of such and such means, and giving the experimental evidence on which he ventured this general opinion, was the voice of a true scientist. The positive excited statements which followed were but the noise and uproar of those far down in the valley, unable to comprehend what this master of research had seen higher up.

Most of the real advances in medicine have been made silently, and after a time it becomes difficult to find their exact source. Many workers in different parts have reached similar conclusions from different points of view, and by their quiet conservative statements, new ranges of facts have been discovered. The noisy assertive enthusiast who makes out a perfected theory, and defends it sharply in journal or volume, is rarely a true devotee of science.

The medical man standing on the highlands today is never dogmatic. All his conclusions and opinions are stated as only apparent truths at present, but subject to constant revision and change, from the application of new facts and evidence. Medical science is really a study of the laws of human evolution and decay, and all our knowledge is of necessity more or less imperfect. What is most needed is a judicial analytical method of study. Not a crowding of statements and theories, but education of the mind to compare the phenomena of life, and discern their true significance. Hence text-books, lectures and journalistic articles which assume completeness in the theories they advocate, are obstructive to science. New discoveries, when beneficial, are to be welcomed always, but never as final absolute truths. If this could be generally realized, we should have no *fads* in medicine, no popular delusions dying away only to give place to others. The bacillary and every other new theory, after passing the ordeal of critical examination, would be quietly accepted as opening an outlet to wider fields of study. As it is, Carlyle's judgment, we fear, must be regarded as correct: "Doctors, like the masses of mankind, keep down in the valley of knowledge; only a few ever climb up the highlands and see the race march with the eye of true science."

SIMPLE MEDICATION.

THE *Medical and Surgical Reporter* for February 14, 1891, reproduces "some admirable remarks" by Dr. Charles Warrington Earle, on the subject of "Simple Medication for Children," which, with a little modification, will apply to the practice of medicine among persons of all ages.

"I believe in medication always, when needed," says Dr. Earle, "but at the same time belong to that class of physicians who believe it quite as much my duty to say to people, 'you need no medicine whatever,' if such be the case, as to prescribe a heroic dose when it is indicated. When, however, good diet, a better hygiene, more air and sunlight will not suffice to save, and it is necessary to give medicine, we owe it to our patients, especially our little patients, to prescribe a drug or drugs so that they shall be cured not only quickly and safely, but, if possible, pleasantly.

"In the first place, many cases to which we are called need no medication whatever; that is especially true of first visits. There is a little irritative fever, a slight indigestion, a trifling nervousness, a few more bowel movements than usual, or the mother simply imagines in her solicitude that the baby is threatened with something. Many conditions similar to these are frequently seen, and they will recover—correct themselves without medicine; indeed, better without than with medicine. . . . I do not advise against the administration of medicines when they are indicated; I know that by the judicious use of a drug or drugs, diseases may be modified, a convulsion possibly averted. But the indication for its use should be clear—we should not give a drug simply to make a show of prescribing. . . .

"Take the eruptive fevers during the first stage: why give a little aconite or belladonna to reduce the fever? We want some fever; we all prefer a temperature of 102° to one at 98°. Why unload the portal circulation and, in so doing, probably irritate to a greater degree the already irritated mucous membrane of the alimentary canal? . . . Do not waste time and annoy the patient by doctoring a symptom; attack the disease [*i. e.*, the whole assemblage of symptoms].

"And then in convalescence—how much it is retarded by the reckless administration of drugs. After a baby has passed through a fever, or some disease of the lungs, it does not need something to act on its liver or kidneys, or to clear up its tongue which is quite frequently normal when a little coated, or some alkali to correct a fancied acidity; but it does need something to eat, and it can't eat as long as the stomach is filled with

nauseous medicines. . . . I solemnly declare that I have been more alarmed for fear that some doctors would kill their little patients with drugs than that the cases would terminate fatally from the disease.

"We now come to pleasant medication. Of course, this is not, by any means, an easy task; sometimes it is impossible without sacrificing the usefulness of the drug. With care, however, we can do much; we can avoid prescribing large mixtures, can stop giving tablespoonful doses, and, in many cases, give our tinctures in water. Happily, the custom of ordering four, six and eight ounce bottles of medicine has nearly ceased. It should be stopped entirely, except in those cases where tonics and cough mixtures are given, when it is necessary to see a patient but seldom. In acute sickness it is usually quite all that is needed to prescribe one-ounce and occasionally two-ounce mixtures. In the administration of most of the tinctures, particularly aconite, veratrum, digitalis, as well as Fowler's solution, etc., where the dose is from a fraction of a drop to one or two drops, it is best for the young physician to carry the drug and measure out enough at each visit for the coming twenty-four hours. This gives a pleasant medicine, and it is also economical, and to young practitioners it is a custom which will make them friends. It is a good practice, too, for physicians to always be ready to give the first dose of medicine; it may not be much, but it convinces the people that you are ready for emergencies; this I say more particularly to those young in the profession.

"With a little care we can treat a case running through several days, if not weeks, with but little display of drugs. Nothing makes the people appreciate the expensiveness of a doctor so much as, at the end of two weeks sickness, having a tableful of bottles partly emptied. And nothing disgusts the patient to such an extent as to witness the doctor every morning commence to write his usual two or three new prescriptions; a part only, at most, will be taken, the remainder goes to make up the tableful, which is to be removed at the conclusion of the sickness."

The above warnings and suggestions are not only most judicious in themselves, but they point to a great change which is evidently taking place in the ideas of the general public as well as of physicians, relative to drug medication. It is not many years since the "tableful of bottles partly emptied at the end of his sickness," was just what the patient expected from his Old School attendant. It was an evidence of the latter's solicitous care, as well as of his wonderful resources! The greatest practitioners have always been those who relied least upon the aid of drugs, but it is only of late that "the people" have begun to be disgusted with over-prescribing. The next generation, probably, will regard the custom very much as we now regard the nauseating polypharmacy of our ancestors.

TREATMENT OF GYNATRESIA.

DR. F. KRUG, of New York, in an excellent article under the heading "Zur Behandlung der Gynatresien" (*Med. Monatschr.*; *St. Louis Clinique*), classifies the cases of gynatresia into two groups:

1. Cases of atresia of the single or double genital canal which are not complicated with or do not lead to accumulation and retention of menstrual or even mucous secretions.

2. Cases of atresia in which above the seat of the atresia accumulation and retention of a menstrual or mucous secretion occur.

To the former group belong the atresiæ with rudimentary uterus and ovaries; to the latter, those cases in which the accumulation of the secretions above the seat of the atresia has taken place, the seat being at the orifice of the vagina (hymen), in the vagina, or in the uterine canal itself. In the first group, surgical treatment is seldom indicated, mostly even contraindicated. The cases are more or less free from symptoms and are often discovered by accident only. On the other hand, the cases of the second group become sooner or later complicated by symptoms of retention and require surgical interference.

The essayist reports two cases belonging to the first group. He agrees with those authors who advise not to attempt to make an artificial vagina to accommodate coition in certain cases of absent or rudimentary uterus. First, because the technical difficulties are very great unless the retention tumor indicates the direction; secondly, the danger of injuring the bladder, rectum, ureters and even the perineum is great; thirdly, the best results obtainable will be unsatisfactory. In cases where the atresia has been discovered in young girls before puberty and when even with normal uterus and ovaries no retention of fluid exists, he advises to operate at once only in cases of simple hymenal atresia. In other cases he advises to wait until symptoms of retention of the menstrual fluid or accumulation of mucus set in.

In regard to the second group of cases of atresia—that in which we have retention of the menstrual or even mucous secretion—Dr. Krug considers operative interference always indicated, as

these cases, on account of this pathological condition, will necessary end fatally. The object of the operation consists in opening the closed portion of the genital tract, in emptying the retained fluid, and in keeping the canal permanently open. Or, in other words:

1. In removal of the present urgent symptoms; and

2. In making the exercise of the sexual function of the woman, menstruation, conception and parturition, possible.

The only real danger in such an operation he considers to be septic infection. Injuring the bladder and other organs can easily be avoided, and if it should happen, is not dangerous. He also does not believe that the sudden opening of the filled sac endangers the patient. In cases of hematosalpinx from extension of the contents of the uterus and where rupture of the fallopian tubes has occurred, this was not due to increased contractions of the uterus itself, but, according to him, due and subsequent to a septic peritonitis. Therefore, antisepsis is unconditionally necessary in the operation.

He always makes the opening complete in one sitting, and at once with the bistoury in the usual manner, and does not use the trocar first. In his after treatment, Dr. Krug abandons the regular irrigation of the vagina, introduction of drainage-tubes, glass tubes, etc. Immediately after the operation he washes out the cavity with Thiersch's solution, and fills it with a tampon of iodoform gauze. The vulva he covers with sublimate gauze.

He reports two cases in which he operated successfully:

1. A case of uterus duplex bicornis, with hematokolpos and hematometra unilateralis congenita, caused by atresia vaginalis superior; and

2. A case of atresia vaginalis congenita, hematokolpos and hematometra.

MISCARRIAGE AND ALBUMINURIA.

IT HAS been so difficult to determine the cause of the great majority of cases of miscarriage in the early months of pregnancy and of albuminuria in the later that all effort to prevent them is frequently unsuccessful. We often find a tendency to miscarriage when neither the physical condition or the habits of the patients give us any clue to the cause. None of the theories yet advanced are entirely satisfactory. The generally accepted theory that albuminuria in pregnancy is occasioned by pressure of the gravid uterus on the ureters, or compressing the aorta below the renal arteries produces an increased blood pressure, does not by any means fill the bill. Possibly the more scientific investigation in the line of modern methods which takes nothing for granted, unless substantiated by well-established facts, may find the tendency to miscarriage and albuminuria in the pregnant state, and also profuse uterine leucorrhœa in the unimpregnated womb arises from one and the same cause.

Drs. Ehrhardt and Faver advance a new theory which, in the light of the careful study of microbes, accounts in a much more satisfactory manner for these troubles than any thing we have yet seen. These gentlemen examined three hundred placentas, twenty of which were from cases of albuminuria. In nineteen out of these twenty cases white infarcts were detected which were full of nests of bacteria. When germs were taken from the infarcts of patients who had suffered from albuminuria and eclampsia and injected into the veins of rabbits and guinea pigs, a sharp pararchematous nephritis was set up. Reasoning from these facts, the conclusion was reached that miscarriage and albuminuria and in the unimpregnated womb, uterine leucorrhœa were the results of germs, the focus of infection being the uterine mucous membrane, producing miscarriage and albuminuria by their action upon the placenta. It is an interesting fact that, in all these cases, the greatest good has been accomplished by attention to the general health and uterine tonics.

THE HEALTH OF NEW YORK.

IN THE report of the Board of Health of the City for 1890, the estimated population is given at 1,631,232, and the number of deaths recorded is 40,103, which exceeds the death record of 1889 by only 424. The death rate is put at 24.58 per 1,000, against 25.06 in 1889, and this in spite of the ravages of la grippe in January.

During the last decade the death rate has decreased from 26.41 per 1,000 to 24.58. This is largely due to the decrease in infant mortality which has been brought about by the labors of the board supplemented by various charities and fresh air funds. A great decrease is also claimed in infectious and contagious diseases.

During the year the board paid a good deal of attention to the tenement houses and closed up 29 of them as unfit for habitation. There are in the city 37,316 houses in which three or more families live and known to the board as "tenement houses." From a poll of these houses taken in October it is known that 32,390 of these houses contain 237,972 families, or 1,097,701 persons, and

the estimate of the board is that at present 1,259,788 of New York's inhabitants live in tenement houses.

The inspection of milk is one of the subjects to which the board claims to have paid the closest attention. There are in the city 5,000 milk stores. During the year 58,721 inspections were made and 299 dealers arrested. Of these 244 were convicted and 41 of the cases are pending. Seven thousand four hundred dollars in fines were collected. The same watchful care was exercised over the meat and fish dealers and 1,200,341 pounds of meat and fish unfit for food were condemned. In addition to this there was upward of 1,000,000 pounds of fruit and other food products condemned.

Among other facts noted in the report is that there were in 1890, 39,250 births recorded, an increase over 1885 of about 9,000. The number of marriages recorded for the year was 14,992, an increase over 1889 of 592. The number of marriages in 1885 was 11,716. All of these calculations are made on the annual estimate of population made by the Board of Health.

JURY TRIAL.

THE folly of submitting cases of supposed insanity to an ordinary jury of laymen was fully illustrated recently in pronouncing a man sane and turning him loose on the community, who had been an inmate of an insane asylum and who, by every physician who had examined him, was said to be suffering from delusional insanity, which was liable at any time to assume the form of homicidal mania. As a result of this we shall in all probability have another Dougherty case in the near future. The difficulty of even a lawyer, skilled in cross-examination of witnesses, reaching a correct conclusion in some cases of insanity, was amusingly illustrated some years since in one of the State Hospitals for the Insane. An assistant district-attorney of this city, celebrated for his skilful examination of witnesses, had been appointed as one of the trustees. One of the patients stated his case so clearly and intelligently, answering every question promptly and correctly, that the lawyer was entirely convinced of the sanity of the man and proposed taking steps for his removal. The patient was invited into the committee room and again put through a long examination. Suddenly, at the suggestion of the superintendent, a question was asked in reference to his wife. In an instant the face darkened, the eyes flashed, the hands were clenched and the answer came in the deep low tones of suppressed fury. Catching the clue, the attorney drew out the statement that the wife was unfaithful and had committed adultery with the archangel Gabriel. Turning to the record it was found that the patient had tried to kill his wife, and if returned home would have undoubtedly made an end of her at the first opportunity. This man had outwitted one of the ablest lawyers in the city, and tried before any jury, except one of experts, would have shown himself entirely sane and sent out into the community with almost the certainty of his killing some one.

We would respectfully suggest to the Medico-Legal Society, if it can spare time from its dinners and its essays and learned discussions, to do any thing practical, to procure the passage of a law to bring cases of supposed insanity before a jury of experts, that society may be better protected.

STATE BOARDS OF MEDICAL EXAMINERS.

THE Regents have appointed from the Medical Society of the State of New York, for three years, from Sept. 1, 1891: W. W. Potter, of Buffalo; Wm. S. Ely, of Rochester, and Maurice I. Levi, of Albany; for two years, Wm. C. Way, of Elmira, and George R. Fowler, of Brooklyn; for one year, I. P. Cuseling, of Auburn, and Eugene Beach, of Gloverville. From the Homœopathic Medical Society of the State of New York: For three years, Wm. S. Searls, of Brooklyn; Horace M. Paine, of Albany, and Asa S. Couch, of Fredonia; for two years, John McE. Wetmore, of New York, and Jay W. Sheldon, of Syracuse; for one year, E. E. Snyder, of Binghampton, and A. R. Wright, of Buffalo.

THE vital statistics of the Jews, as given in the returns of the last census, shows a less marriage rate, a less birth rate and less death rate than their neighbors, and this corresponds with the results obtained in Europe as given by Mr. M. Jacobs in the Journal of the Anthropological Institute. The average age at marriage is greater, and this together with the low marriage rate is the cause of the low birth rate.

Uncontrollable Vomiting of Pregnancy.—Drs. Henske and Gottschalk have found menthol efficacious in stopping the uncontrollable vomiting of pregnancy. Fifteen grains are dissolved in five ounces of distilled water, to which five drachms of rectified spirit are added. A tablespoonful of this mixture is given hourly till the vomiting ceases. The editor of the *Archives of Gynæcology* states that he had an opportunity of trying the efficacy of this mixture. Vomiting ceased after the fourth tablespoonful. Dr. Gottschalk reports two cases with similar results.—*British Medical Journal*, Nov. 1.

BIBLIOGRAPHICAL.

THE PHARMACOLOGY OF THE NEWER MATERIA MEDICA, Etc., Etc. Detroit, Mich.: Geo. S. Davis. Part X.

The fasciculus before us contains all that is known of the drugs guarana, strophanthus, gurjun balsam, helianthella, hoang-nan, hysterionica, ironwood, jaborandi, jambu assa, jambul, jatropha macrorhiza and jequirity, some of which have become some of our most important and reliable remedies. The work should be possessed by all practitioners.

ORIFICIAL SURGERY AND ITS APPLICATION TO THE TREATMENT OF CHRONIC DISEASES. By E. H. Pratt, A. M., M. D., LL.D. Chicago: Halsey & Brothers, 1890.

The author presents in a clear and concise manner the surgical treatment of diseases of the rectum and of the male and female sexual organs. The illustrations and typography of the work are all that could be desired.

DIABETES: ITS CAUSE, SYMPTOMS AND TREATMENT. By Charles W. Purdy, M. D. F. A. Davis, Publisher, Philadelphia and London, 1890.

The author details minutely the symptomatology and pathologcal changes produced by the disease, but adds nothing to the general information as it regards the cause. Clinical cases are given to show the progress of the disease, and the effects of general and specific treatment. One of the most interesting chapters in the book is the one on food, in which a careful analysis is given, including wines and other alcoholic stimulants. Most of the so-called diabetic breads are about as rich in starch as the ordinary home-made bread. Even the gluten flour so largely advertised for diabetes contains from sixty to seventy per cent. of starch. The author recommends the ordinary home-made bread, graduating the amount by its effect in the excretion of sugar. Of wines, the Rhine and Moselle types contain only about one grain of sugar to the ounce, and the Chablis, Risling, Sauteine and the Catawba about the same amount. Clarets contain about three grains of sugar to the ounce, and champagnes from thirty to forty. The only wines in the whole list absolutely free from sugar are two red wines, the Budai Imperial, imported by L. Reich, of New York, and the Diatetischer Bothwin, of Loeb & Co., New York. We have been in the habit of prescribing the Budai in anemic and diabetic patients, and from its entire freedom from sugar and its richness in iron easily assimilated always with benefit.

Of the American waters the author says: "With such excellent and appropriate waters at home as the Waukesha, which stands at the head of the list, the Saratoga Vichy and the Idaho Springs in Colorado, it seems not only foolish but hazardous that so many of our countrymen should undertake the risks, inconveniences and expense of long pilgrimages to European springs, for it is well known that such long, fatiguing journeys are peculiarly dangerous to diabetic patients." We fully endorse the author's warm commendation of the Waukesha water, having used that taken from the clysmic spring for years, and recommended it to friends and patients, always with confidence. The author has given us one of the best short treatises on diabetes we have seen.

DISEASES OF THE DIGESTIVE ORGANS IN INFANCY AND CHILDHOOD. By Lewis Starr, M. D. Second edition. Illustrated. Philadelphia: P. Blakiston, Son & Co.

Dr. Starr has placed not only the profession but mothers, for it is a book for them also, under lasting obligation to him by giving them the results of his wide range of experience in hospital and private practice, and his conscientious studies in a class of diseases in childhood, which by many physicians are less understood than almost any they are called upon to treat. The work is a duodecimo of 400 pages crowded with practical information upon the cure and feeding of children, and the derangements of the system having their origin in gastric irritation and mal nutrition. It should find a place in every nursery.

SAUNDERS' QUESTION COMPENDS. ESSENTIALS OF SURGERY. By Edward Martin, A. M., M. D.

Every medical student will thank Dr. Martin for bringing before them in so clear and concise a manner all the essential points in surgical diagnosis and surgical treatment, and also the publisher, for the very convenient form in which not only this but all of the series of question compends have been given to the public.

HEREDITY, HEALTH AND PERSONAL BEAUTY. By John V. Shoemaker, A. M., M. D. Philadelphia: F. A. Davis, Publisher; 1890.

The title of the book gives a fair idea of what the contents are when the different subjects are discussed by the able and polished writer. While the work is full of practical hints to the physician in the exhaustive manner in which the subjects are handled, to the layman it is full of instruction and almost as fascinating in style and matter as a novel. If introduced into every school library as a class text-book the effect upon the community would be salutary.

P. Blakiston, Son & Co., announce for early publication, "A Handbook of Local Therapeutics," being a practical description of all those agents used in the local treatment of disease, such as Ointments, Plasters, Powders, Lotions, Inhalations, Suppositories, Bougies, Tampons, etc., and the proper methods of preparing and applying them.

The diseases which chiefly require local treatment are those of the Respiratory Passages, Ear, Eye, Skin, together with certain general Surgical affections, including the Diseases of Women. In order, therefore, that the various uses of each remedy may be thoroughly set forth, the following gentlemen have assumed the authorship: Harrison Allen, M. D., Emeritus Professor of Physiology in the University of Penna.; Laryngologist to the Rush Hospital for Consumption; late Surgeon to the Philadelphia and St. Joseph's Hospitals. George C. Harlan, M. D., late Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine; Surgeon to the Wills Eye Hospital, and Eye and Ear Department of the Pennsylvania Hospital. Charles R. Penrose, M. D., Surgeon to the German Hospital; Instructor in Clinical Surgery, University of Pennsylvania, and Arthur Van Harlingen, M. D., Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine; late Clinical Lecturer on Dermatology in Jefferson Medical College; Dematologist to the Howard Hospital.

The work will form a compact volume of about 400 pages.

Wound of the Frontal Lobes from Revolver Ball (Le Dentu, *Le Prog. Med.*).—The symptoms presented were: dullness of intellect, aphasia without paralysis of the tongue, paralysis of the inferior facial on the same side as the wound, also of the frontal and corrugator muscles, and a slight paralysis of the right arm. Later epileptiform convulsions of the right side. Death from pulmonary congestion. There was cerebral contusion at the foot of the second frontal convolution (left), extending under the ascending to the fissure of Rolando, and partly toward the third frontal.—(T. M. S.)

CORRESPONDENCE.

THE ANNUAL MEETING OF THE HOMŒOPATHIC MEDICAL SOCIETY OF THE STATE OF NEW YORK (LIMITED).

From a scientific standpoint it would scarcely pay in this age of valuable thought to waste precious time to consider the papers read at the annual meeting. As we look over the great State of New York and bring before us in panoramic view the illustrious men of the New School of medicine located within its boundaries, and then consider that a very large majority were conspicuous for their absence, and that the few who were present were scarcely heard from as having presented valuable papers, there comes over us a mixture of grief, chagrin and curiosity.

What was done at the last meeting? First, the Constitution and By-Laws were revised; and, second, a selection of fourteen names were made to be presented to the Board of Regents from which list seven were to be chosen to constitute the State Board of Medical Examiners.

If there was ever a farce perpetrated on a State medical society it was at this meeting. The same jealous element which sent out the edict from the New York County Society to the American Institute of Homœopathy by one of the managers of the "North American Journal of Homœopathy" (Limited), censuring Dr. Egbert Guernsey—which the Institute in an emphatic manner caused to be tabled; the same element which in Brooklyn successfully presented it, prevailed here, and carried everything by storm. They had a packed house. In Brooklyn the report on Dr. Guernsey was presented by Dr. Charles Deady, Secretary of the N. Y. County Society, to Dr. John L. Moffatt, of the "North American Journal of Homœopathy" (Limited), and also Secretary of the State Society (Limited). So it can be readily seen that the censure sent by themselves was accepted by themselves, and has been placed in the transactions of the State Society sanctioned simply by the Kings and New York County Societies, which societies are linked into the "North American Journal of Homœopathy" (Limited) by an indistinguishable chain which must be broken before we can again have a State society governed by its members as was intended by its organization.

When men are so bitter in carrying out their hatred and so selfish in furthering personal motives, that they are willing to sacrifice the principles and good name of the organization with which they are connected in order to gain their ends, words need not be carefully chosen in sparing their feelings or in showing them up to the public in the true light of their works. We can see no other way in which to stop such performances as was inflicted upon the society at its last meeting, than to turn on the calcium light so that each member of the State Society may see the drift of affairs, and relieve himself from the ignominous bondage of being managed by a journal (limited).

The majority report on the Constitution and By-Laws presented by Drs. John L. Moffat and E. Hasbrouck, and published in Vol. XXV. of the transactions, will furnish an interesting study. Dr. Dayfoot's minority report offered at the annual meeting was utterly ignored by the clique of journal notority (limited). Inasmuch as the majority report was sent all over the State printed, it certainly was an unnecessary expense and an unnecessary lumbering of the transactions to place it therein, but it was so ordered by the laws of the clique. Read the preface and note the bombastic and dogmatic style. In this report it was their intention that seniors should lose the power to vote. For some unknown reason, however, the clique allowed the historical suffrage to continue.

Dr. Dayfoot, in his published report (not accepted) states that, "The form herewith presented is purposely constructed so as to prevent the officers of the Society to as great an extent as practicable from exercising *judicial* functions. The officers are merely to *execute* the will of the membership; not to govern and control; hence the president is not given the power to appoint *all* the members of the several bureaus. He should, unless nominations are made by the Society, appoint the Chairman thereof, leaving the Chairmen to select his own associates. . . . Provision is also made for voting for candidates *separately*. . . . The selection of nominees for positions on the State Board of Medical Examiners is prudently and wisely placed in charge of the senior members of the Society. The seniors, by reason of age, experience and acquaintance with the members of the Society, are well qualified to perform this delicate and responsible duty. The seniors, also, will give the Society the results of unbiased and matured judgment, being removed from petty cliques and partisan influence. Doubtless their selections will prove creditable to the profession and acceptable to the Society.

"This form has been prepared after mature deliberation and consultation with experienced and active members of the Society, as embodying principles of government that are safe, easy, yet effective in application, liberal and progressive in sentiment, and are eminently worthy the cordial and unanimous approval of the whole body of our membership."

If you will examine the majority report you will see that Dr. Dayfoot's suggestions were ignored; that the president is to appoint Chairmen of bureaus, and according to the Constitution and By-Laws partially adopted by the "North American Journal of Homœopathy" (Limited) clique, which met in Albany, in February, 1891, representing itself as the State Society, one will have about as much freedom of action as a subject of an autocratic government. The Constitution was not fully adopted. We remember one section in which an amendment only was voted down and the original question not put, and a second oversight of this kind would have occurred had not the attention of the president been called to it.

The committee appointed, consisting of Drs. Doughty, Wright, Willis, Schley and Wolcott, to present twenty-one names to the Society to be acted upon, fourteen of which were to be sent to the Board of Regents, in its *modesty*, placed itself on the list, to a man, and several professors were on the list, among whom were Drs. Dillow and Doughty. It has been generally understood that it would be inconsistent with the execution of the law to place any professor on the State Board of Medical Examiners. Drs. Talcott, Shelton and Lee were of this opinion. The reason being that a professor, not unlike "The Lord High Executioner," would as *examiner* inspect his work as a professor of a college and would naturally approve of it? This would not necessarily *elevate* the standard of medical education. Although this question was thoroughly discussed the day before any action was taken on the names to be presented to the Board of Regents, the next day showed a slate put up by the leaders of the "North American Journal of Homœopathy" (Limited), which for brazen impudence excelled any of the clique's previous work. The slate named Professor Dillow as an eligible member, and with Dr. Moffatt, of the same "North American Journal of Homœopathy" (Limited), their names, with others, were sent to the Board of Regents. But, mark you, every man's name which had been reported by the committee recommending same to the Society for favorable action, who had spoken against this ring's methods, was left off the slate as presented to the Society on the following day!

Dr. J. M. Lee, of Rochester, one of the most active and hard-working men in the Society, and one of the most active in the western part of the State to raise funds for the publication of the report on Medical Legislation, was dropped from the clique's list. Another valuable name in the west which should have been placed upon that list is that of Dr.

H. M. Dayfoot, of Rochester. As president he gave the three board bill his best efforts. Such men were not wanted by the journal combination.

The State Society now stands disgraced for having sent up to the Board of Regents professors of colleges. Well may this Board and the Old School ridicule the Homœopathic School in this State for the farce represented in sending in the names of professors of colleges as competent members for the State Board of Medical Examiners. But there are other things which show that the State Society is simply the tool of the "North American Journal of Homœopathy" (Limited). One of the editors of *The Hahnemannian*, published in Philadelphia, one of our best homœopathic journals, has not been treated as should a journalist from another State. This has come to our notice on more than one occasion. It would have been courtesy for the Secretary of the State Society to have notified *The Hahnemannian* of the time of our annual meeting, and to have given Dr. Bartlett, of that journal, and an honorary member of this society, also notice. The secretary is of the opinion, we judge, that the "North American Journal of Homœopathy" (Limited) should alone spread the news from shore to shore, and no other journal.

Finally, although Dr. F. Park Lewis, of Buffalo, a really upright and excellent physician, was made president by unanimous consent from every section of the State, kindly note the fact, however, that Dr. Deady, Secretary of the N. Y. County Society, was made Treasurer in place of Dr. A. B. Norton, who was made First Vice-President. The plan as conceived by the clique in power of placing the Secretary of the New York County Society as Treasurer of the State Society, and elevating the Manager of the "North American Journal of Homœopathy" (Limited) to the First Vice-Presidency, portends at the next annual meeting a continuation of the methods and practices which we consider so obnoxious to the best interests of the State Society.

We have endeavored to criticise and show methods which we consider seriously detrimental to the best interests of the Homœopathic Medical Society of the State of New York. Personally we have no axes to grind.

M. O. TERRY.

WHAT IS A HOMŒOPATHIC PHYSICIAN?

To the Editors of the NEW YORK MEDICAL TIMES:

Answers to the above question were invited by the *Medical Era*, and a number of those received have been published in its last three numbers. They include long communications from leading members of the profession both in this country and England. A résumé is also given of "the definitions received too late for publication in January." The total number of these is one hundred and twenty, which the editor says may be divided into three classes. In the first class he places "the definitions of those who expressly state that in their opinions, the practice of a homœopathic physician should be confined to an application of the law of similia in all cases, and that no other method of practice is allowable. Of these there are ten." In the next class are placed "the replies of those who define a homœopathic physician as being one who believes in the law of similia and who applies it in practice, but who do not expressly state that they believe his practice should be so limited. In a word, they leave it open that other methods may be made use of. Of these definitions there are fifty-six." In the third class the remaining fifty-four are placed. "These definitions expressly state that the homœopathic physician, while he believes in, and applies remedies according to the law of similia, yet may consistently make use of methods outside of the Hahnemannian."

If this analytical summary affords a fair means of judging, it would seem that less than ten per cent. of the so-called homœopathic profession in this country are genuine disciples of Hahnemann, that is, believers in the law of similia, as *the* guide in the practice of medicine. For undoubtedly Hahnemann himself would reject all those who accept it merely as *a* guide—all who, like Dr. A. C. Clifton, in the March *Era*, seek to ameliorate a diseased condition by drugs, the pathogenetic symptoms of which resemble the symptoms of the case in point, but if these fail, "adopt other measures, *antipathic* or otherwise—in fact anything that will relieve the patient." Since Hahnemann himself invented the term "homœopathist," and applied it only to those who accepted his teachings as *verba magistri*, it surely is not rightly assumed now-a-days by practitioners who are constantly straying from the path he marked out for them so strictly. The "homœopathic physician," I contend, is one *who swears by the founder—the creator—of homœopathy*. Whenever such a man (if honest and educated) breaks loose from doctrinal trammels, and gets to treating any considerable proportion of his patients by "outside methods" (as Dr. Clifton confesses *he* does), he becomes a *physician* in the large and true sense of that term, and should he still retain the distinctive title, it simply serves him as an advertisement. And just here I am reminded of an answer to the question under consideration which strikes me as the most correct I have yet seen. It is in precise accordance with the proposition just stated, and as it emanates from the official head and front of homœopathy in your city, must be regarded as authoritative. Says Dr. T. F. Allen (small caps mine): "The rule of our homœopathic society in New York compels each one who unites with it to declare that he believes homœopathy to be the best way of treating the sick; and when a man PUBLICLY UNITES with the society and signifies his assent to this proposition he PUBLICLY DECLARES himself a homœopathist * * * and therefore he must be KNOWN TO THE PUBLIC as a homœopathic physician. Some practice homœopathy more, some less." * * * Just so—exoterically homœopathists; esoterically, anything they please!

E. D. N.

DR. TERRY ON NON-SECTARIAN DESIGNATION.

At our request Dr. Terry has sent us a copy of the following letter for publication, as we believe it voices a rapidly growing sentiment in the medical community, and should be an encouragement to others to adopt the views so well expressed here. May the good work go on, is our earnest hope:

Utica, N. Y., March 19, 1891.

To Drs. C. C. True, H. H. Baxter and William T. Miller, Committee:

My Dear Doctors,—I thank you for the kind invitation to be present at this, the first banquet of the Cleveland Medical College. Since its organization I have been very much interested in its welfare, and have noted the wonderful success attending its first year's growth.

Medical thought has changed so rapidly during the past few years, that the birth of your college at this time seemed necessary, in order to initiate the radical changes incident to the progress in medicine and surgery. It began in a way which will be approved of by the majority of the profession in leaving off the name homœopathic. This distinctive title is no longer necessary. The principle of homœopathy is being rapidly recognized by the best authors of Old School therapeutics, as may be readily seen by examining such works as those of Sidney Ringer, Henry Piffard and even Bartholow.

The application of remedies is only one factor of many with which the medical man has to become familiar; so a college should not be denominated *homœopathic, surgical, anatomical* or *gynæcological*, as all of these subjects and many more must be investigated and mastered in this age before the student can become a modern medical man.

Your liberality and desire to understand everything that

pertains to every department of medicine and surgery is highly commendable, and you are to be congratulated, gentlemen, upon your readiness to keep apace with medical progress, and I am quite sure that this modern and model college will succeed and bring forth students and practitioners who will be able to measure swords with the best of men of any college and of any school of medicine.

Lastly, I wish to cheer you in the very important work of establishing a post-graduate course. Every practitioner and every graduate should avail himself of this new field of practical information without delay, as the imperative duties of a very exacting profession require all the knowledge of a clinical character which can be obtained from every source.

Members of the faculty, I regret that I can not take each one of you by the hand in a hearty shake of greeting and congratulations. Yours very fraternally,

M. O. TERRY.

TRANSLATIONS, GLEANINGS, ETC.

RETROSPECTIVE DIETETICS.

Pustula Maligna from Diseased Veal.—In the autumn of 1886 there was in the Commune *Massa Di Siena*, Italy, an outbreak of malignant pustule which caused the death of four persons and infected twenty-six others. Dr. Tincolini, who attended most of the sufferers, quietly set about investigating the causes of the outbreak, and discovered that a certain veterinarian, named Castellani, of the neighboring Commune of Sovicille, had a calf which died somewhat suddenly. Claiming urgency he made an autopsy without waiting for permission from the Prefect, and declared that the cause of death was rupture of the aorta. He made out a certificate to this effect, and obtained from the authorities permission to sell the carcass for consumption as human food. Three peasant women who aided in the autopsy, and a butcher's boy who peddled the meat, were the first victims, and all died. Six persons who waited upon these four were next infected, but the danger being anticipated, under skillful treatment they recovered. The balance of the cases (twenty in number) were not traced directly to the meat of this calf, but in all human probability it was the direct or indirect cause of infection in every case. In 1876 or 1877 there was an outbreak of pustula maligna in Osceola, Arkansas, which was traced by the writer to handling the hides of deer and domestic cattle that had died of "black tongue."

Tomato Poisoning.—Under this title Dr. Mills (*International Dental Journal*) describes a form of recession of the gums of the superior molars, which he believes to be due to the use of tomatoes as food. The affection is most marked on the palatine surfaces. Great sensitiveness is manifested along the line of recession, similar to that of an exposed nerve. The only remedy was found to be abstinence from tomatoes. If the disease continues, the teeth fall out; not usually more than one being lost in a season.

The Therapeutics of Diet (John L. Davis, M. D., *Dietetic Gazette*, January, 1889). . . . But we must not think of therapeutics as relating to drugs only; we must consider the science in a broader sense; there is a therapy of hygiene and regimen. In other words, there is a curative power in fresh air, sunshine, sanitation, exercise, clothing, and most of all in the food we eat.

We can not overestimate the importance of diet in the treatment of disease; of food, not as opposed to drugs, but in conjunction with them. . . .

When we prescribe aconite in a fever, do we always recollect that starchy food is not well digested in febrile conditions because saliva is scarce? In certain nervous diseases are we mindful that tea, coffee and other stimulating foods may counteract the good done by sedative medicines? . . . The therapy of drugs and the therapy of foods can not be disassociated by the successful practitioner; and I believe the physician of to-day can spend his time no better than in the study of dietetics, with the feeling that this is one factor in the cure of disease scarcely second to medicinal therapy itself. It is too often the case that the doctor's knowledge of this branch of our art is fully given in the careless, though common, answer to an inquiring patient: Oh, take milk, beef tea and soft-boiled eggs; avoid coffee, pork and hot bread! . . . The careless sentence does not express a universal principle, for the wise physician knows that sometimes coffee is the best kind of drink and milk the worst; hot bread is not always lead in the stomach, though eggs—even soft-boiled—may be; and even pork may be beneficial to a sick man, while beef-tea, as often made, contains essentially the constituents of urine, and is no more nutritious.

It is strange that medical men are indifferent to the effects of foods, when so many diseases are best treated by the so-called supportive measures. If we want to support the sick man—or, in other words, "cure him by keeping him alive till the disease period is over"—it is reasonable that we should study earnestly what diet is best for him. We must study food as we do drugs—its physiological and toxical actions, its indications, its therapy, its dosage. And until this is done, we shall not have done the best possible for our patient. . . .

The science of dietetics can be much more accurately formulated to-day than is the science of medicinal therapeutics, *though it often requires a higher medical knowledge to regulate diet in special diseases in order to promote recovery insensibly, than it does to give drugs which produce more evident, though perhaps less efficacious, results.* This is aptly illustrated in cases of intestinal sluggishness, where regulated diet is so far preferable to repeated recourse to drugs which give temporary relief, but tend to render the pathological condition permanent.

Without entering into a detailed discussion of foods, we may consider them as divided into liquids and solids; the liquids to a large extent, the solids to a less degree, containing water as an important element.

It has been asserted, without contradiction, that the lack of water in the dietary is responsible for one-fourth of the cases of disordered digestion which we meet. "In certain quarters, it is fashionable for men to use instead of water at their meals, wines and liquors; and women, who use these less extensively, are apt to avoid water under the impression that its free use tends to obesity, or, by diluting the digestive fluids, may cause dyspepsia."—(Fowler.) Though on the contrary, every physician's experience furnishes numberless examples of illness, usually of a chronic character, directly due to lack of water in the diet. Furthermore, every physician knows that a large class of chronic diseases, chiefly digestive, are curable by the use of water alone as a therapeutic agent.

The value of water in the economy is apparent when we recollect that seventy per cent. of the body is water; that this fluid forms a part in every cell and fiber and tissue in the body; of cartilage, more than half is water; that even bone contains twelve per cent. of water; and the teeth, the densest of the tissues, owe ten per cent. of their weight to the same fluid.

What Hoppe-Seyler says is true, that all organisms are surrounded by running water. "Water gives mobility to the fluids; dissolves and carries in solution the various substances intended for nutrition or destined for excretion. It supplies rotundity and flexibility to the body as a whole; strength and elasticity to the muscles, bones, ligaments and cartilages. Through its agency, exchange of matter and tissue metabolism is effected. Health is only possible where water exists in proper proportion in the tissues and fluids."—(George B. Fowler.) As supplementary to this

the following quotation from Simon is fitting: "In cases, generally, therefore, where the use of water is suitable, and conducted under competent medical advice and direction, the healthy nutrition of the body is promoted in proportion as refuse materials are actively disengaged."

Thus, the necessity for sufficient water in the dietary is realized. If for water, wines or liquors are substituted, these must be taken in dangerous excess if the system is to receive enough fluids for its normal physiological processes.

With regard to solid foods, no recent writer describes the necessity of suitable diet so clearly as is done by Parker, quoted by Aitkin. (Pract. Med., Vol. 2, page 242.) "One of the highest problems is to regulate the supply of the nitrogenous substances—the albuminates—that the digestive power of the stomach and intestines may be increased, together with the formative power in the nitrogenous tissues, and the eliminating powers in the after stages of assimilation. All these three parts of the process must be duly balanced, otherwise health is destroyed. Half-digested food in the stomach or intestines produces irritation. It undergoes chemical changes in the alimentary canal, and quantities of gas are given off * * * urea and carbonic acid, which ought to be eliminated in normal abundance, fail to be provided for from the imperfectly oxidized products of disintegration, and irritation of the eliminating organs is set up. It is highly probable that gouty affections arise in this way, and partly from the use of liquids which delay metamorphosis.

"A great excess of albuminates, without other food, produces marked febrile symptoms; malaria, diarrhœa, and ultimately albumen may appear in the urine, or extensive irritation of the skin may supervene. To increase the adaptation of albuminates, fats and salts must be added to the diet, and the supply of oxygen must be diminished. Lessening the supply of albuminates effects a decline or loss—first of the muscular system, and at a later period of the nervous system and mental powers. Such decline or loss may be delayed by increasing the fats and starches, which by absorbing oxygen limit disintegration; and by perfect rest the loss of flesh may be still further delayed. In the management of the system, therefore, the albuminous tissues can be, to a certain extent, brought under the control of the physician by a judicious adaptation of diet and exercise alone, without the employment of drugs. Drugs, however, when judiciously employed, are important aids at two ends of the scale, namely, to aid primary digestion and to assist elimination."

Now, if attention to this complex physiological process is important in health, how much more essential does it become when the organism is stricken with disease; when the functions are weakened and disordered? Then a double care demands our painstaking service, first to nourish the body and support it through the disease action; secondly, to apply in certain diseases the curative effects of special selected diet. Thus we may resort to a low diet in aneurism; the dry diet in fevers and diabetes; the grape cure in hepatic disorders, etc. Then our food is not only supportive, it is curative, and we have illustrated the therapeutic value of diet.

Retrobulbar Neuritis Consecutive to Influenza (Eperon, *Le Prog. Med.*).—Almost all the maladies in the list of ocular pathology have been observed after this disease, namely, phlegmonous blepharitis; the various forms of conjunctivitis; episcleritis; corneal herpes and its more complicated form, dendritic keratitis; simple or suppurative ulcerative keratitis; tenonitis; simple or purulent iritis; simple and suppurative hyalitis; acute glaucoma; suppurative choroiditis; paralysis of accommodation; ophthalmic migrane, and finally neuralgia in all the branches of the fifth nerve distributed to the eye. These neuralgias are undoubtedly attributable to some infectious lesion of these nerve branches, which are not without effect in the production of these numerous maladies by weakening the resistance of the ocular tissues. These were all amenable to treatment, with the exception of a case of tenonitis, terminating in tuberculosis of the eye, and a case of suppurative hyalitis and choroiditis.

This is not true of retrobulbar neuritis, a condition more insidious in its course and more grave in its consequences, an inflammation of the optic nerve, behind the globe, between the optic foramen and the disc. These cases are rare, although there are undoubtedly cases which are not detected because the patient is not seen until there is more or less atrophy of the optic nerve.

A case reported by M. Sedan, of sudden blindness, in a boy of seven and a half years of age, at the beginning of an attack of influenza, and cured twenty-four hours later with equal suddenness, ought to be attributed to a very severe ophthalmic migrane, although a retrobulbar neuritis, very acute, may produce a complete and very rapid blindness.

M. Bergmeister was the first, before the Vienna physicians, to call attention to this subject, in presenting two patients suffering with severe amblyopia, one in both eyes, the other in the left only, due to influenza. This author gives nearly all of the characteristic traits of retrobulbar neuritis by infection; commencing with cephalic pain; progressive diminution, more or less rapid, of visual acuity, sometimes with central scotoma and integrity of the peripheral visual field, at other times with narrowing of the latter; ophthalmoscope lesions in the beginning nil, or consisting only of a light papillitis, when the ocular extremity of the optic nerve is attacked with inflammation or later simple or neuritic atrophy of the disc.

The author then gives six cases which had been under his own observation. In these the attacks were generally bilateral, with rapid onset, of considerable intensity, subacute progress, and with an unfortunate issue in most of the cases. All of these characteristics are to be found in retrobulbar neuritis the result of the infectious diseases, typhus, variola, measles, diphtheria and scarlatina.

The onset of the neuritis is always marked by cephalic pains, more severe in the orbital and periorbital nerves, but may extend over the brain, especially if the affection is bilateral. These pains are always severe, continual, sometimes preventing sleep. They may continue for weeks and months, especially if no treatment is received. The pains are probably due to the fact that the inflammatory process is not located exclusively upon the optic nerve or its sheath, but also invades the sensitive intraorbital nerves. M. Remak reports, in his patient, cramps in the extremeties, which he attributed to a meningeal irritation. This cephalalgia can not always be differentiated from the neuralgia commonly observed in the course of influenza, without participation of the optic nerve. The diagnostic symptom, and one which must be carefully watched, is the diminution of the central visual acuity, more rarely peripheral scotoma.

The prognosis is very grave, for treatment has failed to benefit in the majority of the cases. Injections of pilocarpine and strychnine respectively in two cases reported by Laudsberg gave relief. One case was seen six weeks after the onset, and the ophthalmoscopic appearance was normal, in the other case the ophthalmoscopic examination was not noted. The author urges upon the general practitioner, who, in the time of epidemics, sees a large number of cases, the necessity of making or having made a careful examination of all organs, upon even slight manifestations, since these may often prove more dangerous than the general symptoms to which his attention is directed.—(T. M. S.)

Myxœdema Relieved by Thyroid Graft (Walther, *Le Prog. Med.*).—The morbid or surgical disappearance of the thyroid gland is the common characteristic of all the forms of myxœdema (cachexia pachydermia of Charcot,

operative myxœdema of Revardin, cachexia strumipriva of Kocher, idiocy with cachexia pachydermia of Bourneville and Bricon). The patient was almost a dwarf in stature, but of sufficient intelligence; the anterior fontanelle was closed, menstruation had been normally established. The myxœdema was marked at thirty years of age, preceded for ten years by metrorrhagia, which had not ceased. She was also subject to epistaxis, and the gums bled easily. The symptoms of myxœdema increased with the appearance of the hemorrhages, and diminished accordingly. The thyroid gland of a sheep was grafted into the submammary region. The operation was done with asepsis, but without the aid of antiseptics. Reunion of the wound by first intention. Three days later the metrorrhagia ceased and did not re-appear. General amelioration of all symptoms followed.

This shows that the thyroid gland has an important rôle in blood making. There was an increase in the number and quality of the red globules. Urea was also increased. The questions still unanswered were, will the gland graft be re-absorbed, or is it a graft in the proper sense of the word? It had apparently diminished slightly in volume, but it could not be claimed that it had assumed a process of true atrophy.—(T. M. S.)

The following recipe from the *North American Practitioner* is a capital one for manufacturing splints out of old cloth, which answer all the purposes of felt:

Dissolve one pound of the best gum shellac in one and one-half pints of 95 per cent. of alcohol, adding one drachm of borax. This makes a syrup-like solution, which is painted over one side of woolen cloth, with a new brush, and the cloth is thoroughly dried before the fire. When dry, a second coat is added; dry again, making a thin piece, which can be strengthened by placing another piece over it, with the prepared surfaces together, when they can be united by pressing with a hot iron.

Pieces of old cloth are better than new cloth, as they absorb more. The splints must be thoroughly dried, or they will not harden. When ready to apply, hold before the fire or in hot water, till soft, then mould to part, remove for a few moments until hardened; this can be expedited by immersing in cold water.

Simple Mode of Removing Spasmodic Stricture.—Dr. C. L. Dodge, of Kingston, N. Y., reports a very novel means of relieving a spasmodic stricture, in the *Medical and Surgical Reporter*. Being summoned to a case of this kind caused apparently by the use of a glycerine suppository, "I suggested," he says, "the use of a catheter, but the patient was very nervous and wished me to try other means first. I then directed him to immerse the penis in a cup of water as hot as could be borne, in the hope that this might cause the spasm to relax; but it proved unavailing. I then gave him one-quarter grain of morphia by the mouth. Shortly after taking the morphia, and before its spasmodic effects could have been produced—for he had just made another attempt to urinate—I asked him to come into the bath room and try once more to void his urine, while I turned on the faucet of the wash-basin and allowed a gentle stream to run. In less than a minute the spasm relaxed and he passed over a pint of limpid urine. He has had no return of the trouble since."

Aristol.—M. Quinquaud (*Le Prog. Med.*) has found it difficult to obtain a pure article. It is not toxic in the guinea-pig or dog except in doses varying from one to two grammes per kilogramme of weight. Its absorption is shown by the elimination of the iodine in the urine during four or five days. It is a powerful antiseptic with marked cicatrizing properties, and especially useful in simple chancre and superficial wounds, but it has no curative action upon ulcerating epithelioma.—T. M. S.

The Prophylaxis of Scarlatina.—De Rosa (*Giorn. Internaz. Delle Scienze Med.*, 1890, No. 3) believes that in salicylic acid we have a powerful prophylactic against scarlatina, for of sixty-six children who were exposed to the contagion of scarlatina, and who took daily 0.10 to 0.30 gramme, one and one-half to four and one-half grains of salicylic acid, sixty-three escaped the disease. As De Rosa emphatically remarks, this result may be expected only when the salicylic acid is given early, in sufficient daily doses, and is continued as long as there is any danger of infection.

Absorption of Tumors by Electricity.—Dr. Moritz Meyer reports a number of instructive cases in which he caused the disappearance of tumors by percutaneous galvanization and faradization (*Berl. Kl. Woch.*, No. 30, 1890). In 1859 he removed, by means of the faradic current, an indurated tumor of the neck, of the size of a man's head, which the celebrated Langenbeck had regarded as inoperable. Several years ago he produced in this way absorption of a mass of callous of the size of a fist on the elbow joint, and last year obtained the same result in a case of callous formation on the second phalanx of the right index finger, which had rendered the patient unable to work. After thirty-seven sittings the tumor had disappeared, and the function of the joint was completely restored. In a case of chronic synovitis, which was only temporarily improved by massage, galvanization effected a perfect cure, and this was also observed in a case of gouty deposits in the sheaths of the tendons. For galvanization the author employs flexible electrodes of various sizes, adapting themselves to the surface of the body.

Effects of Testicular Fluid.—Brown-Sequard says (*Le Prog. Med.*) that it is now one year (June) since he first reported upon this subject, and which had been treated with appreciation and ridicule. His experiments had been upon himself at first, and had served to restore the tonicity (muscular) of the rectum, which had been in a weakened state, as was frequent in old people, and had removed an obstinate constipation the result of the weakness. The urinary stream had been increased in force and volume. The muscular power of the lower members had been augmented, as well as the ability to work. These results continued for sixteen weeks before showing signs of abating. He was then attacked with a severe cough, and went to Nice. In December he had again recourse to the fluid, but this time he injected it into the rectum, the effects being less powerful. He used the fluid of two testicles, diluted with forty to fifty grammes of water. Among the diseases successfully treated, as reported by physicians undoubtedly worthy of belief, are intermittent fever. A patient who had been in bed for three years, very weak, almost dying, was injected with testicular fluid of a monkey, seven hours after its death, which ought to have been very dangerous, and was on his feet on the morrow; a leper in Nice was cured of quotidian fever, and of chills, an isolated manifestation of the fever, by the rectal injection. Four lepers had been treated for contractures, paralysis and general weakness, with marvellous results. The ulcers cicatrized, and in one case a nail about to fall off was restored to normal condition. Several ataxics had shown considerable improvement, of which one was almost cured, while no effect was shown in another case. Paraplegias and other paralysies, hemiplegias from cerebral causes, cardiac intermittency of nervous origin, and anemia from loss of blood, have all been relieved and in some cases cured by this fluid. He thought the result due to an influence exercised upon the nerve centers which are excited, since in nearly all the subjects we have in common a general weakness the result of loss of power of the nerve centers.—T. M. S.

Cystopexy in Vaginal Cystocele.—Several cases are reported (*Le Prog. Med.*) of this operation. One case, age thirty-six years, suffered with simple vaginal cystocele. Hypogastric incision of 6 cent., after dilatation of the bladder. The latter was fastened to the edges of the wound with deep sutures of catgut; superficial sutures; no drainage. The cystocele was reduced and so remained at the end of six months. Another case was one of prolapsus uteri of long standing, for which amputation of the neck had been performed, associated with an enormous vaginal cystocele, the size of a fœtal head. Hypogastric incision showed an adherent loop of intestine to the posterior wall of the bladder. The operation was performed as usual, using silk ligatures. The patient died from broncho-pneumonia setting in on the sixth day, during the grippe. The autopsy showed firm adhesion of the wound and bladder, and the ligatures holding well; the bladder had an enormous capacity. The operation had been done as a complimentary one to hysteropexis. The operation had been done through the cavity of Retzius, so that we had the intraperitoneal as well as the extraperitoneal methods.

It was argued that this was an experimental method and that we had better modes of operation. It was based on a misapprehension of the nature of cystocele, which was due to the failure in involution of the anterior vaginal wall, and it was the weakness of the perineo-vaginal floor that must be combatted. For this colporrhaphy was the best method. Why prefer a supra-pubic operation, which might be dangerous, to a very simple vaginal operation?

On the other hand, there are cases which colporrhaphy will not cure, so that cystopexis should not be condemned *a priori*.—T. M. S.

Hypnotic Effect of Warm Bandages.—Warm baths, as is well known, produce a calming effect, and tend to bring on sleep, and Alldorfer has attempted to apply such a method in patients where a sedative effect is desired and yet where a bath is inapplicable (*Jour. de Méd. de Paris*, March 9, 1890). His method consists in wrapping the lumbar region and belly with linen cloths soaked in warm water, and then covering them with oiled silk or rubber-cloth, so as to prevent evaporation, while the whole is kept in place and loss of heat prevented by a flannel cloth.

This procedure is of ready performance, and the author says that by this simple means he has obtained the most astonishing results in the treatment of insomnia.

A Simple Method of Removing a Needle.—"I think it may be of service to record a simple means by which I obtained the removal of a broken needle from the heel of a young lady, aged twelve, whom I saw lately walking about on her toes to avoid her right heel, into which a needle had been broken, touching the ground. The buried end could be felt, but any pressure led to its further entry. I directed her to wear a large thick corn-plaster around the spot, with a little wet cotton-wool in the center, and to tread freely on the heel. Within a week afterwards she showed me the needle, which had protruded, and she had easily withdrawn it. Thus no wound was made, and no scar left to be a tender spot on the plantar surface."—Dr. Charles Steele, in *British Medical Journal*, Oct. 18.

What to Do When Starving.—A survivor of the hardships of Frémont's terrible four expeditions writes as follows in a posthumous narrative of the expedition printed in *The Century* for March, in which he more than hints at the fact of cannibalism:

It was curious to hear different men tell of the workings of the mind when they were starving. Some were constantly dreaming or imagining that they saw before them a bountiful feast, and would make selections of different dishes. Others engaged their minds with other thoughts. For my part I kept my mind amused by entering continually into all the minutiæ of farming, or of some other systematic business which would keep up a train of thought, or by working a mental solution of mathematical problems, bringing in review the rudiments of some science, or by laying out plans for the future, all having a connection with home and after life. So in this way never allowing myself to think upon the hopelessness of our condition, yet always keeping my eyes open to every chance, I kept hope alive and never once suffered myself to despond. And to this course I greatly attribute my support, for there were stronger men who, by worrying themselves, doubtless hastened their death. Ten out of our party of thirty-three that entered the mountains had perished, and a few days more would have finished the others.

Chloride of Sodium as an Antiseptic.—Fritsch, of Breslau, recommends chloride of sodium in solution, carefully sterilized and warmed, for the purpose of douching wounds after operations instead of the antiseptics ordinarily in use. This solution he has employed in such operations as removal of uterine fibro-myomata, ovariotomy, and in one Cæsarean section, in all cases successfully. In his opinion, cold antiseptic solutions should never be used in surgery, but always douches of chloride of sodium, sterilized and warm, 0.6 per cent strength. He believes that by this means patients complain of less discomfort after the operation, and more quickly recover.

Open Tenotomy.—Jalaguier (*Le Prog. Med.*) reported six tenotomies of the sternocleido mastoid muscle, five by the subcutaneous and one by the open method. This was for a severe torticollis, in a child of fifteen months, and it was followed by exuberant granulations. He did not believe the former method should be lightly abandoned.

Lucas-Championniere has performed the open method for fifteen years, and absolutely rejects the sub-cutaneous method for club-foot as well as for torticollis. Perfect results can be obtained by the former and annoying complications, such as infiltrating hemorrhages, are avoided. Cicatrices following the operations of older surgeons are not to be compared with those of the present, since the former were attended with suppuration.

Quenu had performed an open tenotomy recently, in a child two and one-half years old, where the ligament and tendon were very hard, thick and large. Notwithstanding the greatest care he had severed a very large vein. Under the subcutaneous method the same thing would certainly have occurred and a severe hemorrhage have resulted.—T. M. S.

Coffee, its Use and Abuse.—A paper on this subject, by Dr. I. N. Love (*Journ. Am. Med. Assoc.*, Feb. 14, 1891) concludes as follows:

1. The world has in the infusion of coffee, one of its most valuable beverages.

2. As a prompt diffusible stimulant either by the stomach or by injection into the rectum, it is in all cases of shock, preferable to alcohol.

3. It is antagonistic to malaria and specially destructive to the typhoid bacillus and cholera germ, and for this reason it is an admirable remedial agent in these conditions, both as a direct stimulant, an antiseptic and an encourager of elimination.

4. One of its chief advantages in health and disease is in the fact that it aids in securing that psychical satisfaction which is conducive to hope, comfort, good digestion, great power of resistance and rapid recuperation.

5. In season, it supports, tides over dangers, helps the appropriative powers of the system, whips up the flagging energies, enhances the endurance, but is in no sense a food.

and for these reasons, and many others, it should be used temperately, as should all of nature's benign gifts.

6. In excess, it is even more dangerous than alcohol, for it is not, like the latter, a nutrient, nor is the effect of its excessive use so apparent or disrespectable.

Habitual Abortion.—The *British Med. Journal*, Dec. 20, 1890, states that at the meeting of the Obstetrical Society of London, Dec. 3, 1890, Dr. Leith Napier read a paper on habitual abortion. Apart from disease, malformation, or physiological incompetency, there is, he thinks, no "habit" of aborting. The pathology of "habitual" abortion is the same as that of ordinary or single abortion. Turning to etiology, Dr. Napier showed that more than half the cases were due to uterine congestion or disease, and only 9 per cent. to syphilis. Reflex causes were discussed; at most only 7 per cent. were truly reflex. Syphilis is much more commonly the factor of premature birth than of abortion. Seventy-seven per cent. of women subject to "habitual" abortion are either nulliparous gravidæ, who begin their obstetric career by frequent abortions; or multiparous women, who often terminate fecundity by repeated abortions. Women who habitually abort are, as a class, very fertile. "Habitual" abortion is highly amenable to treatment. Over 67 per cent. of the patients were delivered at term after cure of the cause of the "habit." Dr. Napier thought congestion of the uterus more important as a factor in abortion than retroflexion. He admitted the importance of chronic cardiac disease.

Chloral as a Coagulant.—According to Dr. Marc Sée it possesses the property of coagulating blood and serous fluids, and may be made to replace the iodine solution generally injected into hydroceles. He himself has treated two hundred hydroceles with chloral without the occurrence of any accident. He employs for this purpose a 10 per cent. solution, an ounce of which is injected all at once, or very slowly, into the sack. Two or three days afterwards a large effusion of blood into the tunica takes place, but is seen entirely reabsorbed. The chloral solution above referred to may be repeatedly injected, with advantage, into the neighborhood of varicose veins, as it causes the blood gradually to coagulate, and the veins to contract.—*Lancet.*

Shock.—The following are given in the *Medical Record* as the chief rules of treatment suggested for the prevention or alleviation of shock *before operation:*

1. Wait for re-action.
2. Give alcohol in some form a quarter of an hour before anesthesia.
3. Anesthesia to be as short as possible.
4. Operation to be as rapid as is prudent.
5. Dressing to be as short as possible.
6. The patient never to be chilled.

After Operation:

1. Persistent and carefully applied dry heat.
2. Nutrient enemata.
3. Hypodermic injection of brandy or some other diffusible stimulant.
4. Quiet and rest with the head low.

Variola and Tuberculosis.—In the *British Medical Journal* of January 24th, Dr. Lawrence cites two instances of remarkable recovery from advanced stages of tuberculosis, seemingly as the result of virulent forms of small-pox. The patients, he says, were both young men in the last stages of pulmonary consumption. In each case there were large vomicæ and the patients were much emaciated. Both the young men were attacked with virulent small-pox, with very high temperatures. They were supported with stimulants and a nourishing diet, and as they recovered from small-pox, the pulmonary symptoms in each case began to disappear. They each made a good recovery and are now in robust health. In these instances so well attested it becomes a question of deepest interest as to the manner in which such results were accomplished. Is there a small-pox bacillus which controls the situation, and is the weaker bacillus of tuberculosis overpowered and driven out? Or by reason of the new disease did the phagocytes take on increased activity and destroy the tuberculous bacilli? These questions raised by the writer are sure to attract attention, and in our future bacteriological studies we must confront the question as to how tuberculosis is modified or controlled by small-pox, if such shall be found to *be* a fact.

Extirpation of the Vesiculæ Seminale.—Dr. E. Ullmann, of Vienna, reports the first case of extirpation of the seminal vesicles. In a boy, aged seventeen years, castration was performed on the right side owing to tuberculosis of the epididymus, and a considerable swelling and solidity of the right vesicula seminalis was noticed at that time. Two months later extirpation of the vesiculæ seminales was performed. The operation was performed in Professor Albert's clinic. Starting from the perineum, the anterior wall of the rectum was detached; both the vesiculæ seminales and the right vas deferens were removed. Perfect recovery followed. Dr. Ullmann recommends this operation in primary tuberculosis of the epididymis when the epididymis of the other side is healthy, and the vesiculæ seminales tuberculosis; also in primary tuberculosis of the vesiculæ seminales.

Non-Isolation in Typhoid Fever.—Dr. Furbringer reports to the Berlin Medical Society (*London Lancet*) the principal data concerning the late epidemic of typhus fever in the city above named—155 cases, in all, were received at the hospital, and the disease ran for a period of seventy-five days. Isolation was not practiced with any rigidity, and yet no other patients contracted the fever; only four of the Sisters of Mercy took the fever, and one other attendant, with no deaths among the latter. The excreta were removed or destroyed without delay, and this Dr. Furbringer holds is the main point of prophylaxis whether in private or in hospital practice; in importance it far outweighs all attempts at isolation. Forty-two of the patients, when convalescent, were sent to the convalescent homes, affiliated with the general hospital, and with good results.

Scrotal Tumors.—Hernia is sausage-shaped. Hydrocele is pear-shaped. Hematocele is globular. Sarcocele and varicocele are irregular. All are dull on percussion, except hernia of the intestine, which is clear; omental hernia is dull. All are opaque, except hydrocele, which is translucent. Reducible hernia and large varicocele receive an impulse on coughing, and yield to pressure; the other varieties do not. Hernia and hematocele come on suddenly; the others are slow to develop.

Posture for Epistaxis.—Dr. J. M. Applewhite writes to the *Medical World* that in two cases of epistaxis he succeeded in controlling the hemorrhage, after all other means had failed, by placing the patient upon a table, face upwards, and allowing the head to drop down at a right angle with the body, with the top of the head resting upon a box or stool, keeping him in that position for six hours or more. He plugged the anterior nares, and as the law of gravitation would not allow the blood to flow upward into the posterior nares, he had no trouble, with proper treatment, in saving both cases, when their friends had despaired of their lives. One of these patients would have died, had plugging been the only resort, as he would not open his mouth, and was pulseless and insensible for some time.

MISCELLANY.

—A medical man in Rome recently brought to light some interesting specimens of ancient dentistry and artificial teeth, in skulls from different Etruscan tombs dating so far back as six centuries B. C.

—According to Dr. Roberts, circumcision is a sanguinary rite derived from Asia, and having the same remote origin as Phallus worship. It is not the monopoly of Jews, for it is practised by certain African tribes to whom hygienic considerations must be altogether foreign.

—The ordinary obstetric fee in the interior of China, according to a writer in the *Medical Missionary Journal*, is among the better classes two dollars when the child proves to be a boy, one dollar for a girl. Among the poorer, one dollar for a boy and fifty cents for a girl.

—The legislature of the Province of Quebec does not intend that the unsettled districts shall remain unpopulated. At its last session the legislature passed a bill authorizing the government to offer a reward of one hundred acres of crown lands to the fathers of all families of twelve or more living children. Already 1,250 fathers whose quivers are full have presented their claims, and more are coming.

—The *Australasian Medical Gazette* has not only admitted to its columns an article explaining and defending homœopathy, but one showing clearly where Ringer and Brunton obtained many of their new remedies and their new uses of old remedies.

—The Russian government has announced that at the end of five years, the decimal system of weights and measures shall be the only legal standard. Great Britain and the United States will then be the only civilized nations which use the ancient systems.

—A French aural surgeon, M. Lannois, has been devoting some attention to the effect the constant use of the telephone has upon the human ear. From his examination of the ears of fourteen girls who were in the service of a telephone office he concludes: 1. That the constant use of the telephone seems to exert no bad effect upon sound ears, but that it is harmful for those which are already the subject of disease. 2. That these affections consist especially of an impairment of hearing from fatigue of the auditory attention, buzzing headache, vertigo, nervous excitability, and certain transient psychical disturbances. 3. That these effects are often of brief duration and disappear as the auditory apparatus becomes accustomed to its work, and that in all cases they cease when telephone work is abandoned.

—The most evil-smelling of substances is said to be the newly discovered substance known as thioketone, a monosulphuretted acetone ($C_2 H_6 S$), which has an odor in comparison with which that of sulphuretted hydrogen, or percaptan, is agreeable. It is impossible to distill a small quantity without infecting the whole neighborhood with the vilest of smells.

—The tubercle bacillus seems to differ from the other bacteria in the fact that albumens alone are insufficient as nourishing media, but that the presence of glycerin and carbohydrates is essential to its growth.

—Dr. Clarence Thwing, of Brooklyn, has accepted an invitation to establish one or more missionary hospitals in the territory of Alaska, beginning at Sitka.

—In giving iodine or the iodides internally for a considerable length of time, unpleasant symptoms often develop as a result, and it is a fact not generally known that these may be avoided by the daily administration of fifteen to twenty grains of sodium bicarbonate.

—Pineapple juice is said to be a sure cure in diphtheritis, will our readers try it and report?

—The Island of Heligoland, whose name has lately figured prominently in the *World's* news columns, is perhaps a good illustration of the microbic purity of the ocean air. In 1888 only twenty persons died out of its population of 2,000. Of these twenty deaths, fourteen occurred in persons past seventy years of age, and none occurred among children. The average age of the twenty was sixty-six and one-half years, a remarkable showing.

—Fermentation of milk occurs only in consequence of the introduction into it of micro-organisms. If the milk be received by a sterilized tube into a sterilized receptacle directly from the udder of the cow, it will not ferment nor become acid, though kept indefinitely.

—In a work recently published on Japan, Dr. Vincent, a medical officer of the French navy, describes a disease of the lungs which he believes to be peculiar to that country. It is caused by a parasite, the distoma pulmonale, and is characterized by hemoptysis occurring several times a day for ten or fifteen years, or longer, and ending in dangerous hemorrhage.

—It is reported that Dr. Henry Muirhead, late president of the Glasgow Philosophical Society, has bequeathed the sum of $125,000 for the erection and endowment of a college which shall be devoted entirely to the instruction of women in medicine, surgery, dentistry, electricify and chemistry. It is said that some of the professional chairs, at least, will be filled by men.

—Goodell has characterized the human female as essentially a "constipated Biped," a new and very characteristic classification in anthropology, though it is founded upon a very important truth.

—A structure is soon to be erected for the University of Pennsylvania, for the teaching of the science of hygiene in a thorough and systematic manner. The plan proposes an institute where all kinds of food will be analyzed by every appliance known to modern science. Apartments are to be provided where tests will be made as to the effect produced by steam heat when applied to mills and dwellings, the evil effects arising from exposing garbage and other offal; in fact, everything that affects the physical organization will be carefully examined under the direction of competent authorities.

—A case of leprosy has been discovered at Chester, Pa., which has occasioned no little excitement in that locality. The man, formerly a sailor, is about forty-seven years old, and came to this country about nine years ago. It is an undoubted instance of the disease, having been seen by Drs. William Pepper, Louis A. Duhring and Judson Deland.

—Says Lawson Tait: "The road to success in the practice of our art lies not only in knowing how to deal with disease, but how to deal with men and women who suffer from it."

—There is said to be a law in Bulgaria to the effect that if a patent medicine which is advertised to cure a certain malady fails to do so, the vendor of the remedy is liable for damages, and may also be sent to prison for a limited period of time as a punishment for publishing an untruth to the injury of the public.

—A new regulation of the Polyclinic, in this city, denies admittance to eclectic and homœopathic graduates. The Post-Graduate Medical School and Hospital, on the other hand, advertise that their college "is open to all physicians having legal right to practice in their respective States."

—It is said that the proportion of people living in France over sixty years old is greater than in England. Yet England is the home of athletic sports, while the French are averse to athletics for their own sake.